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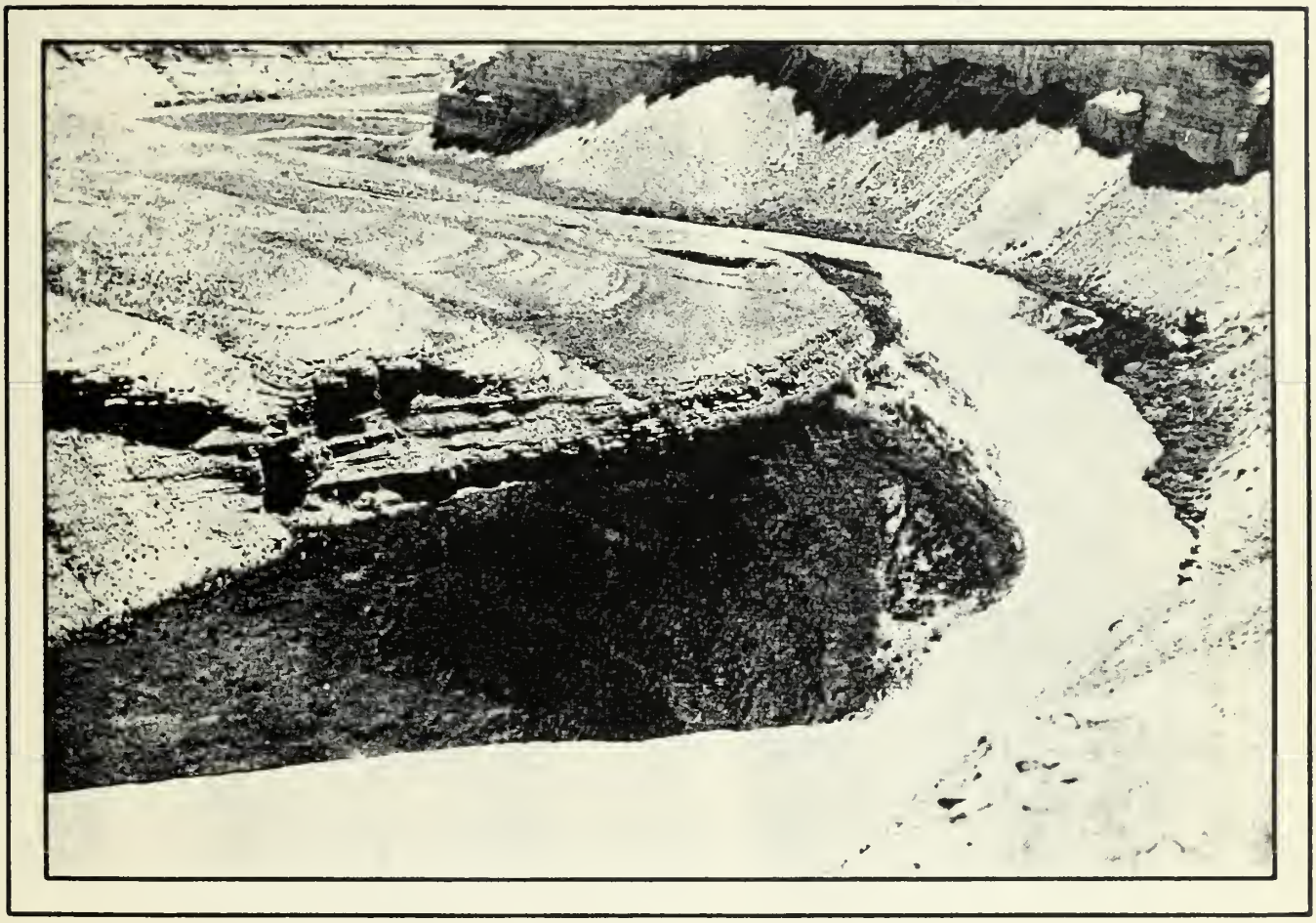

WATER RESOURCES FIELD DATA REPORT 1984

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WATER RESOURCES FIELD DATA REPORT
1984 WATER YEAR

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PREFACE

The water resources data for Tracts Ua and Ub presented in this report were collected during the 1984 water year (October 1983 to September 1984). The White River Shale Oil Corporation (WRSOC) and Harmsworth Associates, its water resources consultant, were responsible for surface water data collection at one station on Evacuation Creek (Sta. No. 09306430), four on the White River (Sta. Nos. 09306500, 09306510, 09306615, and 09306700), two in Plant Site Wash (Sta. No. 09306602 and RES-1), two in Southam Canyon Wash (Sta. No. 09306605 and 09306610), and one in Asphalt Wash (Sta. No. 09306625). Ground water data were collected at wells monitoring the following zones or aquifers: 10 wells in the Bird's Nest Zone, 1 well in the Uinta Formation, 4 wells in the Southam Canyon Alluvian, and 6 wells in various formations surrounding the Plant Site Wash Retention Dam.

Evaporation data were collected at 2 stations (EVP-1 and EVP-9) and precipitation data were collected at 11 stations (ARA-1, ARA-2, ARA-13, ARS-9, RA-4, RB-1, RS-10, RS-11, RS-13, RV-7, and RV-8. Additional data from U.S. Geological Survey streamflow records were utilized as supplemental information.

The Field Data Report is designed to provide a complete record of water resources data for the 1984 water year. These data, and subsequent statistical analyses, were used as a basis for the water resources portion of the 1984 Annual Environmental Report issued by WRSOC. WRSOC welcomes any comments or questions on these data.

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White River below Meeker, CO
(Station No. 09304800)
- USGS Mean Daily Discharge

1984 WY UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

09304800 WHITE RIVER BELOW MEEKER, CO PROCESS DATE: 12-DEC-84 11:00 RGC
LAT 400048 LONG 1080533 STATE 08 COUNTY 103 DATUM OF GAGE: 5928.00 FT NGVD DRAINAGE AREA: 1024

PROVISIONAL DATA DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	592	492	531	430	395	345	500	626	4620	2830	948	781
2	658	436	518	425	395	350	500	818	4440	2370	918	736
3	737	431	503	425	390	350	500	866	3980	1930	915	711
4	741	430	518	425	390	350	500	765	3880	1750	1010	694
5	716	425	482	425	390	355	535	790	3700	1670	947	678
6	693	418	439	424	380	360	600	811	3880	1720	917	667
7	637	424	466	420	380	370	615	742	5210	2020	854	666
8	615	411	492	420	380	375	625	730	4450	1770	834	640
9	612	423	525	430	380	390	685	866	3790	1600	820	634
10	598	422	518	390	380	390	600	1170	3140	1430	811	672
11	630	418	512	420	375	395	650	1630	3140	1500	742	723
12	616	416	503	430	375	395	590	2300	3160	1410	700	709
13	601	435	505	415	375	415	590	2830	3090	1320	668	654
14	677	407	490	440	375	411	580	3070	3350	1230	752	662
15	679	354	504	430	375	420	596	3680	3720	1140	762	792
16	622	364	496	465	375	439	713	3990	4090	1070	711	792
17	592	389	491	405	375	419	795	4110	4080	1010	817	708
18	587	388	491	400	375	441	1070	4080	3660	969	980	678
19	606	411	503	395	375	409	999	3500	3430	945	1160	675
20	581	513	476	395	375	430	849	3710	3330	947	937	740
21	563	499	417	395	370	450	710	4150	3540	986	851	793
22	554	380	421	395	380	480	666	4240	3640	1220	885	729
23	549	487	448	395	340	450	703	4370	3470	1230	928	699
24	542	493	446	395	340	455	818	5020	3280	1280	840	783
25	537	434	464	395	350	470	967	5850	3230	1110	789	769
26	529	429	472	395	335	455	831	5250	2980	1040	757	744
27	522	486	459	395	310	455	741	5060	2860	985	727	716
28	511	503	428	395	335	445	680	4100	2840	1090	705	714
29	500	515	437	395	345	450	659	3590	2820	1140	680	695
30	497	502	446	395	- -	450	617	3580	2840	1110	702	695
31	495	---	430	395	---	485	---	3680	---	1040	871	---
TOTAL	18589	13135	14831	12754	10715	12854	20484	89974	107640	42862	25936	21349
MEAN	600	438	478	411	369	415	683	2902	3588	1383	837	712
MAX	741	515	531	465	395	485	1070	5850	5210	2830	1160	793
MIN	495	354	417	390	310	345	500	626	2820	945	668	634

CAL YR 1983 TOTAL 348490 MEAN 955 MAX 6060 MIN 270
WTR YR 1984 TOTAL 391125 MEAN 1069 MAX 5850 MIN 310

White River near Colorado-Utah State Line
(Station No. 09306395)
- USGS Mean Daily Discharge

1984 WY UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

09306395 WHITE RIVER NEAR COLORADO STATE LINE, UT PROCESS DATE: 18-JAN-85 07:37 GCA
LAT 400050 LONG 1090448 STATE 49 COUNTY 047 DATUM OF GAGE: 5030.00 FT NGVD DRAINAGE AREA: 3680

PROVISIONAL DATA DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	592	587	370	41	380	965	1070	4720	3340	1400	795
2	707	594	565	370	430	420	932	1120	5210	3250	1410	859
3	566	594	542	370	450	450	767	1350	5460	3040	1350	980
4	830	593	537	330	470	470	714	1350	4810	2900	1220	814
5	764	575	520	310	470	470	765	1250	4790	2700	1200	795
6	729	568	460	300	470	460	908	1290	4260	2500	1170	727
7	707	564	430	320	490	410	942	1290	5340	2300	1270	765
8	670	601	430	330	520	420	905	1260	6150	2100	1170	693
9	665	661	556	310	520	460	950	1260	6050	2200	1150	729
10	670	639	600	290	520	500	1050	1420	4800	2200	1070	734
11	670	586	620	280	520	550	958	1790	4140	2050	1040	871
12	680	579	610	310	520	600	1090	2300	4110	1950	1020	1100
13	670	580	600	350	510	600	554	3060	4080	1900	1010	837
14	690	579	550	350	490	640	728	3640	4050	1850	967	801
15	808	583	520	330	460	700	739	4050	4250	1500	918	760
16	764	550	566	320	450	760	773	4810	4540	1700	900	774
17	696	546	541	290	460	950	870	5210	4580	1600	1120	794
18	669	563	537	280	440	920	1020	5270	4790	1530	1090	814
19	661	560	440	270	430	990	1340	5060	4460	1450	1380	790
20	671	562	410	290	420	1050	1480	4500	4240	1390	1520	763
21	648	560	390	340	330	1200	1430	4540	4210	1320	1520	782
22	637	575	360	380	340	1700	1140	4870	4290	1310	1260	973
23	629	532	340	420	350	1400	1000	4990	4260	1290	1090	924
24	624	561	370	460	376	1000	994	5160	4110	1340	1100	805
25	616	511	400	470	390	980	1190	5410	3960	1420	1050	900
26	612	550	420	470	370	920	1550	5240	3860	1520	1030	808
27	608	630	450	470	370	949	1490	5810	3520	1490	960	912
28	603	569	420	470	370	863	1320	5350	3390	1450	911	797
29	594	569	390	470	370	877	1190	4910	3360	1340	873	778
30	595	604	350	460	---	917	1140	4590	3280	1330	841	770
31	593	---	370	430	---	990	---	4570	---	1370	812	---
TOTAL	20909	17330	14871	11210	12357	23796	31174	108420	133970	52930	34822	24247
MEAN	674	578	480	362	426	768	1039	3497	4466	1901	1123	808
MAX	866	661	620	470	520	1700	1550	5240	6150	3340	1520	1100
MIN	565	511	340	270	41	380	714	1070	3280	1290	812	693
AC-FT	41470	34370	29500	22240	24510	47200	61830	215100	265700	116900	69070	48090

CAL YR 1983 TOTAL 418949 MEAN 1148 MAX 5500 MIN 230 AC-FT 831000
WTR YR 1984 TOTAL 492036 MEAN 1344 MAX 6150 MIN 41 AC-FT 976000

Unpublished Records Subject to Revision

Unpublished Records Subject to Revision

Maximum discharge, 6,620 ft3/s June 8, gage height, 8.88 ft. Shift of +0.35 used. Measured 6/11/8

Evacuation Creek near Mouth, near Watson, Utah
(Station No. 09306430)
- Discharge Manuscript
- Station Analysis
- Discharge Measurement Summary Sheet
- Mean Daily Discharge
- Laboratory Water Quality Data
- Field Water Quality

DISCHARGE MANUSCRIPT

09306430 - EVACUATION CREEK NEAR MOUTH, NEAR WATSON, UTAH
1984 WATER YEAR

Location: Lat 39° 57' 08", long 109° 09' 31", in NE 1/4 SW 1/4 NE1/4 sec. 13, T10S, R24E, Uintah County, on right bank approximately 2.2 mi upstream from mouth and 4.8 mi north of Watson.

Drainage Area: 282 mi^2

Water Discharge Records

Period of Record: October 1974 to September 1976 and October 1977 to September 1984.

Gauge: Water-stage recorder and artificial control. Altitude of gauge is 5,050 ft from topographic map.

Remarks: Records are good.

Average Discharge: 10 yrs. 3.79 ft^3/s, 2,450 acre-ft/yr.

Extremes for Current Year: Maximum discharge, 1,980 cfs September 26, 1979, gauge height, 7.48 ft based upon slope area measurement; minimum discharge short periods of no flow in 1975 and 1980.

Extremes for Current Year: Maximum discharge, 1,320 cfs Aug 20, gauge height, 6.56 ft; minimum discharge 0.72 cfs February 3-4, gauge height 2.35 ft.

Station Analysis

09306430 - EVACUATION CREEK, NEAR WATSON, UTAH
1984 WATER YEAR

Equipment: Analog and digital (Leupold-Stevens) stage recorders in a 48-inch CMP shelter over a 24-inch CMP stilling well. Staff gauges are attached inside and outside of the stilling well.

Gauge Height Record: The analog record was complete and provided a satisfactory record except for periods when communication was lost on recessions. The digital recorders float mechanism failed during rising stage on several occasions. Failure was caused by the float tape hanging up. Both systems failed on the rise July 23. The digital record was used for periods of stable flow.

Datum Correction: None. Last levels dated June 23, 1983. Recorder and pen corrections were applied to adjust for incorrect settings or for pen drift.

Rating: The sand streambed is stabilized by an artificial structure consisting of 3 ft x 3 ft x 1.4 ft gabion baskets approximately 15 feet downstream. Sand overlaying the structure varies in depth depending on streamflow. The effects of sand movement on the stage-discharge relationship varies from flood to flood and from time to time. All rating conditions converge with rising stage as the banks remain stable.

During the year, 25 discharge measurements Nos. 268-292 were made. All measurements were used in this analysis including Nos. 267 and 293 made prior to and following the water year. Measurements Nos. 267-278 cover a range in discharge from 1.0 to 5.8 cfs during the period October 1, 1983 to March 5, 1984. Minor shifting occurred during this period of flow which included a peak discharge of 142 cfs. Measurement No. 279 showed major scouring occurred with the peak discharge of 219 cfs March 13. Measurement No. 280 (March 17) showed deposition of sand followed the high water event. Measurement Nos. 281-293 confirm this condition prevailed throughout the remainder of the water year.

Rating 7 was developed as the base rating. A straight logarithmic line extrapolated downward through slope area Measurement Nos. 115 and 150 provide a medium to high water curve. The low end of the curve is an approximate average of Measurement Nos. 280-293.

Rating 8 was developed based on Measurement Nos. 267-278, and used for the period October 1, 1983 to March 13, 1984 (2100 hrs). Minor shifts ranging from positive 0.04 ft to negative 0.03 ft were applied on a time prorated basis. Rating 9, based on Measurement No. 279, was used direct from March 13, (2115 hrs) to March 16, (2400 hrs). Ratings 8 and 9 are considered shift curves to Rating 7. Rating 7 began March 17 and continued throughout the year based on Measurement Nos. 280-293. Shift adjustments were varied from 0.14 ft to 0.02 ft based on interpretation of the stage chart. Shift adjustments were based on expected discharge continuity. Abrupt minor changes noted on the analog chart were interpreted to be caused by sand movements as opposed to sudden changes in discharge.

Throughout the periods of March 26 to September 30, shifts ranging from positive 0.08 to negative 0.08 were applied on a time prorated basis. Rating 7 was in effect at the end of the water year.

Discharge: Computation of mean daily discharge included using the analog chart, digital primary, and special computations. Computation of discharge was as follows:

Oct 1-3: Analog chart, Rating 8
Oct 4-5: Special
Oct 6-Nov 25: Digital, Rating 8
Nov 26-Dec 2: Special
Dec 3-12: Digital, Rating 8
Dec 13-Jan 3: Analog, Rating 8
Jan 4-Feb 11: Digital, Rating 8
Feb 12-Mar 13 (2100 hrs): Analog, Rating 8
Mar 13 (2115 hrs)-Mar 16 (2400 hrs): Analog, Rating 9
Mar 17-21: Analog, Rating 7
Mar 22-26: Special

Mar 27-Apr 11: Analog, Rating 7
Apr 12-20: Digital, Rating 7
Apr 21-23: Special
Apr 24-25: Digital, Rating 7
Apr 26-May 7: Special
May 8-18: Digital, Rating 7
May 19-June 6: Special
June 7-14: Analog, Rating
June 15-27: Special
June 28-July 8: digital, Rating 7
July 9-Aug 3: Special
Aug 4-6: Digital, Rating 7
Aug 7-16: Special
Aug 17, 18, 20: Analog, Rating 7
Aug 19, 21-28: Special
Aug 29-Sept 9: Digital, Rating 7
Sept 10, 11: Analog, Rating 7
Sept 12-30: Special

Special Computations: Most periods of estimated discharge followed high water events. Estimates of discharge for these periods were made by hydrographic interpolation between the recorded portion of the recession and the discharge measurement that followed. Minor peaks recorded during silted periods provided partial day records used in estimating mean daily discharges.

Remarks: Records fair. Approximately 40 percent estimated.

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306430

DISCHARGE MEASUREMENTS OF Evacuation Creek Nr Mouth DURING THE YEAR ENDING SEPT. 30, 1984

NO	DATE 1983	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING 08 SHIFT ADJ. FEET	RATING 08 PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	S+F TIME HOUR	MEAS RATED	TEMP. AIR °C	TEMP. H_2O °C	REMARKS
267	9-28	Hale	11.8	2.37	1.43	2.48	3.36	0		6	22	0	0945 1015	F	1.5	10	ISHWM 2.88
268	10-6	"	9.0	2.48	1.90	2.50	4.75	+.02		.6	23	0	1040 1110	F	12	11	FWQ
269	10-21	"	9.5	2.45	1.69	2.50	4.15	0		.6	20	0	1010 1040	F	9	3.8	ISHWM 2.94
270	11-4	"	9.9	2.53	1.55	2.53	3.89	-.03		.6	20	0	0905 0930	F	6.2	4.3	
271	11-14	"	10	3.06	2.00	2.55	6.12	+.01		.6	21	0	1150 1215	—	8	7	
272	12-2	"	7.8	1.40	1.18	2.40	1.72	+.01		.6	20	-01	1030 1055	F	1	4.5	
273	12-27	"	6.1	1.46	1.14	2.41	1.66	0		.6	16	0	1045 1110	F	0	6	snow on banks
	1984																
274	1-4	"	8.9	1.51	.87	2.41	1.31	-02		.6	23	0	1030 1100	G	-3	7	10" snow on banks
275	1-26	"	7.1	1.28	.99	2.39	1.25	-.01		.6	18	0	1015 1040	F	-6	7	10" snow
276	2-2	"	7.5	1.24	.84	2.37	1.04	0		.6	18	0	1125 1145	—	-11	8	
277	2-23	"	10.0	2.42	1.43	2.46	4.0	+.04		.6	25	0	1015 1050	G	-5	4	
278	3-5	"	10.7	4.02	1.45	2.55	5.81	0		.6	21	0	1130 1155	F	-8	4	
279	3-14	"	24.5	16.4	3.40	2.82	55.8	Rating 9 0		.6	26	-02	1200 1235	F	7	0	ISHWM 3.99 + 3.40
280	3-26	"	18.6	6.26	1.91	2.54	11.9	Rating 7 -08		.6	25	-01	1120 1150	F	6	5.5	ISHWM 3.38
281	4-11	"	21.5	8.84	2.45	2.64	21.7	-.01		.6	23	0	0940 1010	F	5	5.8	
282	4-23	"	21.0	6.03	2.10	2.52	12.7	-.04		.6	24	0	0858 0940	F	13	7.8	FWQ
283	5-7	"	20.8	6.62	2.38	2.54	15.8	0		.6	24	0	0955 1025	F	6	6	FWQ
284	5-16	"	27.0	12.1	3.11	2.75	37.0	+.08		.6	28	0	0835 0915	G	13.5	9.8	FWQ

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VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306430

DISCHARGE MEASUREMENTS OF Evacuation Creek Nr Mouth DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1984	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING 07 SHIFT ADJ. FEET	RATING 07 PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	TIME HOUR	MEAS. RATED	TEMP. AIR	TEMP. H_2O	REMARKS
285	6/13	Hale	24.5	8.65	2.53	2.61	22.0	+.03		.6	26	0	1025 1100	F	25	15	ISHWM 4.78
286	6/27	"	21.5	5.61	2.30	2.48	12.9	+.01		.6	24	0	1030 1100	F	19.5	17.5	
287	7/9	"	22.0	5.44	2.02	2.49	11.0	-.03		.6	23	0	1150 1225	F	28	24	
288	7/20	"	17.0	4.57	2.28	2.46	10.3	-.03		.6	20	0	0950 1020	F	26	20	ISHWM 3.08
289	8/3	"	23.0	6.71	2.11	2.46	14.2	+.05		.6	23	0	0745 0815	F	16	15	ISHWM 5.90
290	8/17	"	26.5	7.42	2.53	2.55	18.8	+.04		.6	29	0	0825 0900	F	18	16	ISHWM 4.18 FWQ
291	8/28	"	20.5	4.60	1.82	2.32	8.4	+.06		.6	22	0	0935 0955	F	20	14	ISHWM 6.56
292	9/10	"	9.5	2.09	1.76	2.27	3.7	-.03		.6	20	0	1010 1030	F	20	13	
293	10/22	"	17.5	3.89	1.61	2.32	6.3	0		.6	20	0	1210 1250	F	8.0	5.0	ISHWM 5.18 removed eq.

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STATION NUMBER: 09306430 NAME: EVACUATION CREEK NEAR MOUTH NEAR WATSON, UT

DISCHARGE (CFS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.0	1.5	1.3	1.0	3.7	13	15	32	13	25	5.3
2	32	4.0	1.7	1.3	0.86	3.7	13	15	31	11	20	4.7
3	18	4.0	1.9	1.3	0.72	5.4	12	17	30	9.9	11	4.5
4	8.0	4.0	1.7	1.3	0.72	5.4	12	16	29	9.0	11	4.5
5	6.0	4.0	1.2	1.3	0.87	5.8	13	16	28	8.6	13	4.2
6	5.0	4.4	1.3	1.3	0.87	5.4	14	15	28	8.6	11	3.9
7	4.7	4.4	1.3	1.3	0.87	5.4	16	15	157	8.6	10	3.3
8	4.7	6.2	1.5	1.5	0.87	5.8	16	15	50	9.9	9.0	3.3
9	4.4	5.8	1.7	1.5	0.87	5.8	18	16	50	16	9.0	3.3
10	4.0	5.4	2.1	1.3	1.0	8.0	19	18	28	13	8.0	3.2
11	4.0	5.4	2.3	1.3	1.0	34	19	18	25	12	7.0	5.8
12	4.4	5.4	2.8	1.3	3.1	37	17	20	23	12	7.0	20
13	4.4	6.2	3.1	1.3	3.0	49	15	23	22	11	8.0	7.0
14	10	6.2	2.6	1.3	2.8	74	14	25	21	11	7.0	6.0
15	5.8	5.1	2.3	1.5	2.8	79	13	28	20	11	25	5.0
16	4.7	4.0	3.1	1.5	3.4	125	14	34	19	10	40	10
17	4.7	4.7	2.6	1.5	4.0	48	15	37	19	10	20	6.0
18	4.4	5.4	2.3	1.5	3.7	33	16	40	18	10	21	5.0
19	4.7	4.7	2.6	1.5	4.0	32	18	40	17	10	15	4.5
20	4.4	5.1	2.3	1.5	4.0	31	21	35	17	10	190	4.0
21	4.0	6.2	2.1	1.3	3.7	44	18	32	16	14	30	73
22	3.7	5.4	2.1	1.3	3.4	30	15	30	16	13	20	17
23	3.4	4.0	2.1	1.3	3.7	15	13	30	15	65	15	8.0
24	3.4	3.7	1.9	1.3	3.7	14	13	30	14	28	10	6.0
25	3.4	2.8	1.7	1.3	3.4	13	17	33	14	25	12	5.0
26	4.4	1.8	1.7	1.2	3.4	12	19	32	13	20	12	4.5
27	4.0	1.4	1.7	1.2	3.4	12	17	32	13	20	10	4.0
28	4.0	1.4	1.7	1.2	3.4	12	16	29	12	18	8.0	4.0
29	3.7	1.5	1.5	1.2	3.7	11	16	29	12	16	6.4	3.5
30	4.0	1.5	1.5	1.0	—	11	15	28	11	18	6.4	3.0
31	3.7	—	1.5	1.0	—	11	—	28	—	16	5.7	—
TOTAL	185	128	61	41	72	781	467	791	800	468	603	242
MEAN	6.0	4.3	2.0	1.3	2.5	25	16	26	27	15	19	8.1
MAX.	32	6.2	3.1	1.5	4.0	125	21	40	157	65	190	73
MIN.	3.4	1.4	1.2	1.0	0.72	3.7	12	15	11	8.6	5.7	3.0
AC-FT	368	254	122	81	143	1550	926	1569	1587	927	1195	479

WTR YR 1984 TOTAL: 4639 MEAN: 13 MAX: 190 MIN: 0.72 ACRE-FT: 9202

LABORATORY WATER QUALITY DATA

FOR EVACUATION CREEK STATION 09306430

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	TURBI-DITY (NTU)	SUS-PENDED SOLIDS, RESIDUE @ 105 C (MG/L)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25
05/16/84	0945	37	9.8	9.2	8.3	8.1	15	9000	23300	1975	2240
05/24/84	0735	37	13.5	8.3	8.0	--	--	--	--	1807	--

DATE	TIME	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE-TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
05/16/84	0945	1610	1686	619	331	288	1050	<1	12	8	<0.01
05/24/84	0735	--	--	--	--	--	--	--	--	--	--

DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO
05/16/84	0945	18	<0.01	2.1	7.6	<0.01	14	101	89	306	5.4
05/24/84	0735	--	--	--	--	--	--	--	--	--	--

LABORATORY WATER QUALITY DATA

FOR EVACUATION CREEK STATION 09306430

DATE	TIME	PERCENT SODIUM	POTASSIUM, DISS., (MG/L)	SULFATE, DISS., (MG/L)	CHLORIDE, DISS., (MG/L)	FLUORIDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUMINUM DISS (UG/L)	ARSENIC DISS., (UG/L)
05/16/84	0945	52	4.3	962	18	0.5	0.009	<0.2	440	45	2
05/24/84	0735	--	--	--	--	--	--	--	--	--	--

DATE	TIME	BARIUM, DISS., (UG/L)	BERYLLIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHROMIUM, DISS., (UG/L)	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MANGANESE, DISS., (UG/L)	MERCURY Diss., (UG/L)	MOLYBDENUM, Diss., (UG/L)
05/16/84	0945	100	<5	<0.1	<1	<1	20	<1	<10	<0.1	13
05/24/84	0735	--	--	--	--	--	--	--	--	--	--

DATE	TIME	NICKEL, DISS., (UG/L)	SELENIUM DISS (UG/L)	SILVER, DISS., (UG/L)	STRONTIUM, DISS., (UG/L)	VANADIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS. RADON METHOD (PCI/L)
05/16/84	0945	<1	<1	<0.2	2600	2	53	--	--	--	--
05/24/84	0735	--	--	--	--	--	--	7.0	<10	<5	<0.50

FIELD WATER QUALITY DATA

EVACUATION CREEK STATION 09306430

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	DIS-SOLVED OXYGEN (MG/L)
10/06/83	1015	4.8	3350	11.0	8.0	9.5
10/21/83	1020	4.2	3610	3.8	8.9	11.2
11/04/83	0915	3.9	3460	4.3	7.2	10.0
11/14/83	1205	6.1	3510	7.0	7.8	9.6
12/02/83	0945	1.7	4060	4.5	7.8	9.8
12/27/83	1115	1.7	3800	6.0	8.3	10.0
01/04/84	1100	1.3	3590	7.0	7.8	9.6
01/26/84	1015	1.3	3900	7.0	8.0	9.7
02/02/84	1115	1.0	4100	8.0	7.2	9.6
02/23/84	1045	4.0	4360	4.0	8.8	10.7
03/05/84	1205	5.8	3840	4.0	8.4	10.1
03/14/84	1230	57	1150	0.0	9.2	11.6
03/26/84	1130	12	3280	5.0	8.2	10.2
04/11/84	1010	22	2980	5.8	7.3	10.0
04/23/84	0920	13	2560	7.8	8.2	9.4
05/07/84	1020	16	2900	6.0	8.6	10.0
05/16/84	0945	37	1980	9.8	8.3	9.2
05/24/84	0950	37	1810	13.5	8.0	8.3
06/13/84	1100	22	2360	15.0	8.3	8.0
06/27/84	1030	13	2900	17.5	8.4	8.4
07/09/84	1225	11	2550	24.0	7.8	8.0
08/17/84	0800	20	1710	16.0	7.8	8.2
08/28/84	0840	8.4	3070	14.0	8.7	--
09/10/84	0950	3.7	3370	13.0	8.5	8.3

White River below Evacuation Creek, Near
Watson, Utah (Sta No. 09306500)
- Discharge Measurement Summary Sheet
- Field Water Quality and Suspended Sediment Data

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306500

DISCHARGE MEASUREMENTS OF WHITE RIVER BELOW EVACUATION CREEK NEAR WATSON, UTAH DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1984	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING SHIFT ADJ. FEET	RATING PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	S&F TIME HOUR	MEAS RATED	TEMP. AIR	TEMP. H_2O	REMARKS
1	2/29	J.W. Hale	101	143.6	2.46		353			.6	28		0930 1100	F	-8.0	0	
2	5/21	J.W. Hale	117	775	6.34		4910			.2+.8 +.6	29		1000 1115	G	24.0	13.0	
3	6/6	J.W. Hale	118	772	6.23		4810			.2+.8 +.6	25		0815 0910	F	12.0	11.5	
4	9/5	J.W. Hale	101	301	2.65		799			.2+.8 +.6	27		0830 0930	F	22.0	17.0	

COPIED BY H.E. SKJOLD COMPUTED BY H.E. SKJOLD CHECKED BY

SUSPENDED SEDIMENT AND FIELD WATER QUALITY DATA

WHITE RIVER STATION 09306500

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SUSP SEDI-MENT DIS-CHARGE (T/DAY)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)
02/29/84	1100	383	173	179	820	0.0	10.0	--
04/17/84	0950	891	1950	4691	1030	9.5	9.2	--
06/06/84	0950	4810	4010	52078	473	11.0	9.3	8.2
09/05/84	0950	795	272	584	774	17.0	8.8	9.0

White River below Wagon Hound
(Sta. No. 09306510)
- Daily Water Temperature
- Daily Specific Conductance
- Field Water Quality
- Laboratory Water Quality

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON MOUND

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
2	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
3	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
4	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
5	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
6	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
7	---	---	---	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
8	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
9	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
10	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
11	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
12	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
13	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
14	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
15	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
16	---	---	---	---	---	---	0.5	0.0	0.5	0.0	0.0	0.0
17	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
18	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
19	---	---	---	4.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
20	---	---	---	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
21	---	---	---	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
22	---	---	---	3.0	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
23	---	---	---	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
24	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
31	---	---	---	---	---	---	0.0	0.0	0.0	---	---	---
MONTH:	---	---	---	---	---	---	0.5	0.0	0.0	---	---	---

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON MOUND

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	0.0	0.0	0.0	5.5	4.5	5.0	11.0	8.5	10.0
2	---	---	---	---	---	---	6.0	4.5	5.0	12.5	9.5	11.0
3	---	---	---	---	---	---	6.5	5.0	5.5	---	---	---
4	0.0	0.0	0.0	---	---	---	7.0	5.0	6.0	---	---	---
5	0.0	0.0	0.0	---	---	---	8.0	6.0	7.0	---	---	---
6	0.0	0.0	0.0	---	---	---	10.5	8.0	8.5	---	---	---
7	0.0	0.0	0.0	---	---	---	10.5	8.0	9.5	---	---	---
8	0.0	0.0	0.0	---	---	---	11.5	8.5	10.0	---	---	---
9	0.0	0.0	0.0	---	---	---	10.5	8.5	9.0	---	---	---
10	0.0	0.0	0.0	---	---	---	9.0	7.5	8.5	---	---	---
11	0.0	0.0	0.0	---	---	---	8.5	7.5	8.0	---	---	---
12	0.0	0.0	0.0	---	---	---	8.0	6.5	7.5	17.5	14.5	16.0
13	0.0	0.0	0.0	---	---	---	9.5	7.0	8.0	16.5	15.0	15.5
14	0.0	0.0	0.0	---	---	---	10.5	6.0	8.5	15.0	14.0	14.5
15	0.0	0.0	0.0	---	---	---	11.5	7.0	9.5	14.5	13.5	14.0
16	0.0	0.0	0.0	---	---	---	12.5	7.5	10.0	14.0	13.0	13.5
17	0.0	0.0	0.0	---	---	---	12.0	8.5	10.5	14.0	11.5	13.0
18	0.0	0.0	0.0	---	---	---	12.5	11.5	11.5	---	---	---
19	0.0	0.0	0.0	---	---	---	13.5	12.0	12.5	---	---	---
20	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
21	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
22	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
23	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
24	0.0	0.0	0.0	---	---	---	13.0	9.5	11.0	---	---	---
25	0.0	0.0	0.0	---	---	---	11.0	7.5	9.5	---	---	---
26	0.0	0.0	0.0	---	---	---	7.5	5.5	6.5	14.5	13.5	14.0
27	0.0	0.0	0.0	2.0	0.0	0.5	6.5	5.5	6.0	14.5	13.5	14.0
28	0.0	0.0	0.0	3.0	0.0	1.0	8.5	5.0	7.0	14.5	14.0	14.0
29	0.0	0.0	0.0	3.5	0.5	1.5	8.5	13.0	14.5			
30	---	---	---	3.5	0.5	1.5	10.0	7.0	8.5	17.5	14.0	15.5
31	---	---	---	6.5	3.5	5.0	---	---	---	18.0	15.5	16.5
MONTH:	---	---	---	---	---	---	---	---	---	---	---	---

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON MOUND

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	16.0	17.0	19.5	17.0	18.0	23.5	20.0	22.0	---	---	---
2	18.5	15.5	16.5	20.0	16.5	18.5	23.5	19.5	21.5	---	---	---
3	15.5	14.5	15.0	21.5	18.0	19.5	23.5	20.0	21.5	---	---	---
4	15.5	13.0	14.0	---	---	---	---	---	---	---	---	---
5	15.5	14.5	15.0	---	---	---	---	---	---	21.0	17.0	19.0
6	15.0	13.0	14.0	---	---	---	---	---	---	20.0	17.5	18.5
7	14.0	12.5	13.0	---	---	---	23.5	16.0	20.5	19.0	14.5	17.0
8	12.5	12.0	12.5	---	---	---	---	---	---	19.0	14.0	16.5
9	12.0	11.5	12.0	---	---	---	---	---	---	20.0	16.0	18.0
10	12.5	11.5	11.5	22.0	19.5	20.5	---	---	---	21.0	16.5	18.5
11	13.0	12.0	12.5	22.0	19.0	20.5	---	---	---	18.5	17.0	18.0
12	14.5	13.0	13.5	22.5	19.5	21.0	---	---	---	18.0	16.5	17.5
13	17.0	14.0	15.5	21.0	19.5	20.5	---	---	---	20.5	16.5	18.5
14	17.5	15.0	16.0	22.5	18.5	20.5	---	---	---	20.5	17.0	18.5
15	17.0	15.5	16.5	23.0	20.5	21.5	---	---	---	21.0	17.0	19.0
16	17.0	15.5	16.0	24.0	20.5	22.0	---	---	---	21.0	18.0	19.0
17	15.5	14.5	15.0	23.5	20.5	22.0	24.5	21.0	22.5	20.5	17.0	18.5
18	16.5	14.5	15.0	24.0	20.0	22.0	24.0	21.0	22.5	24.0	17.0	18.5
19	16.0	14.5	15.0	25.0	20.5	22.0	22.5	20.0	20.5	20.0	17.0	18.0
20	16.5	14.5	15.5	---	---	---	20.5	17.5	19.0	19.0	16.5	17.5
21	17.5	14.5	16.0	---	---	---	20.5	17.0	18.5	19.0	15.5	17.0
22	17.5	15.0	16.5	---	---	---	21.5	18.5	20.0	17.0	15.0	16.0
23	18.0	15.5	16.5	---	---	---	21.0	19.0	20.0	17.5	14.5	15.5
24	18.0	15.5	17.0	---	---	---	---	---	---	16.0	13.0	14.5
25	20.5	16.5	17.5	---	---	---	---	---	---	14.0	11.0	12.5
26	---	---	---	24.0	21.0	22.5	---	---	---	12.5	10.5	11.5
27	---	---	---	23.5	20.0	21.5	---	---	---	14.5	11.0	12.5
28	19.5	17.0	18.5	24.0	20.5	22.0	---	---	---	13.0	10.5	11.5
29	20.0	17.5	18.5	25.0	20.5	22.5	---	---	---	13.0	9.0	10.5
30	19.0	18.5	18.5	25.0	19.5	22.0	---	---	---	13.0	9.5	11.0
31	---	---	---	24.5	---	---	---	---	---	---	---	---
MONTH:	---	---	---	---	---	---	---	---	---	---	---	---

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON HOUND

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	760	771	753	768
2	---	---	---	---	---	---	782	765	780	794	765	780
3	---	---	---	---	---	---	774	754	764	802	776	790
4	---	---	---	---	---	---	---	---	---	776	752	763
5	---	---	---	---	---	---	---	---	---	811	768	786
6	---	---	---	---	---	---	---	---	---	857	811	830
7	---	---	---	---	---	---	---	---	---	860	825	846
8	---	---	---	---	---	---	---	---	---	825	798	807
9	---	---	---	---	---	---	---	---	---	799	788	795
10	---	---	---	---	---	---	---	---	---	798	790	796
11	---	---	---	---	---	---	---	---	---	802	792	798
12	---	---	---	---	---	---	---	---	---	803	794	800
13	---	---	---	---	---	---	---	---	---	824	802	812
14	---	---	---	---	---	---	---	---	---	828	823	825
15	---	---	---	---	---	---	---	---	---	829	813	821
16	---	---	---	---	---	---	---	---	---	819	807	815
17	---	---	---	---	---	---	764	736	755	817	805	813
18	---	---	---	---	---	---	792	762	776	828	810	818
19	---	---	---	785	749	764	807	773	785	866	828	842
20	---	---	---	773	755	765	801	779	787	920	866	886
21	---	---	---	765	741	756	891	---	---	---	---	---
22	---	---	---	765	749	756	---	---	---	---	---	---
23	---	---	---	787	723	748	---	---	---	---	---	---
24	---	---	---	769	729	749	---	---	---	---	---	---
25	---	---	---	739	717	730	866	---	---	---	---	---
26	---	---	---	811	731	756	902	866	887	856	794	822
27	---	---	---	---	---	---	900	894	897	798	760	782
28	---	---	---	---	---	---	906	886	894	772	754	765
29	---	---	---	---	---	---	889	847	871	758	748	755
30	---	---	---	---	---	---	845	765	802	764	758	760
31	---	---	---	---	---	---	763	739	749	778	768	775
MONTH:	---	---	---	---	---	---	---	---	---	---	---	---

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON HOUND

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	1080	1050	1060
2	---	---	---	---	---	---	---	---	---	1080	1060	1070
3	---	---	---	---	---	---	---	---	---	1130	1020	1080
4	828	812	821	---	---	---	---	---	---	1060	1020	1040
5	820	796	808	---	---	---	---	---	---	1060	1030	1040
6	816	798	808	---	---	---	---	---	---	1070	1050	1060
7	812	788	799	---	---	---	---	---	---	1060	1030	1050
8	800	784	794	---	---	---	---	---	---	1040	929	1020
9	802	786	794	---	---	---	---	---	---	1050	---	1010
10	794	764	781	---	---	---	---	---	---	1070	1000	1040
11	845	787	806	---	---	---	---	---	---	1020	---	---
12	880	844	860	---	---	---	---	---	---	---	---	---
13	877	787	822	---	---	---	---	---	---	---	---	---
14	800	787	794	---	---	---	---	---	---	---	---	---
15	806	792	801	---	---	---	---	---	---	---	---	---
16	806	782	792	---	---	---	---	---	---	653	606	626
17	790	774	782	---	---	---	---	---	---	636	580	604
18	796	784	790	---	---	---	---	---	---	599	570	582
19	810	794	801	---	---	---	---	---	---	596	537	564
20	814	802	810	---	---	---	---	---	---	589	477	552
21	824	806	814	---	---	---	---	---	---	568	437	518
22	850	824	833	---	---	---	---	---	---	541	476	501
23	876	846	858	---	---	---	987	843	932	---	---	---
24	876	850	867	---	---	---	1030	1010	1020	---	---	---
25	---	---	---	---	---	---	1040	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH:	---	---	---	---	---	---	---	---	---	---	---	---

STATION NUMBER: 09306510 NAME: WHITE RIVER BELOW WAGON HOUND

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	446	418	435	934	614	665	735	683	710
2	---	---	---	446	420	435	782	610	652	769	736	755
3	---	---	---	474	400	450	737	642	662	754	700	724
4	---	---	---	---	---	---	662	641	648	711	700	709
5	---	---	---	---	---	---	656	631	644	758	715	732
6	---	---	---	---	---	---	668	637	648	773	717	738
7	---	---	---	---	---	---	894	633	690	---	---	740
8	---	---	---	---	---	---	762	600	648	763	732	746
9	---	---	---	---	---	---	649	596	616	742	672	716
10	---	---	---	---	---	---	629	597	606	722	680	709
11	---	---	---	---	---	---	641	603	615	717	693	708
12	---	---	---	---	---	---	621	599	610	1180	679	897
13	---	---	---	---	---	---	615	597	604	951	806	856
14	---	---	---	---	---	---	650	599	623	927	788	835
15	---	---	---	---	---	---	703	617	653	804	743	766
16	---	---	---	---	---	---	1280	459	817	978	743	790
17	---	---	---	---	---	---	---	---	---	952	735	783
18	---	---	---	---	---	---	---	---	---	865	286	737
19	---	---	---	---	---	---	1340	---	---	727	700	713
20	---	---	---	---	---	---	1430	---	---	767	706	717
21	---	---	---	---	---	---	1000	---	---	1240	719	798
22	---	---	---	---	---	---	---	---	---	976	737	843
23	---	---	---	---	---	---	---	---	---	826	719	749
24	---	---	---	948	610	720	1210	699	813	771	708	738
25	---	---	---	1040	664	764	1160	728	780	963	710	754
26	---	---	---	736	592	642	990	717	758	771	720	738
27	649	434	460	806	602	641	817	721	742	737	702	719
28	474	436	455	640	588	619	755	719	736	711	695	703
29	472	430	451	650	614	628	774	728	742	714	693	704
30	458	434	447	774	578	661	766	728	740	708	683	697
31	---	---	---	844	638	703	763	714	734	---	---	---
MONTH:	---	---	---	---	---	---	---	---	---	---	---	751

FIELD WATER QUALITY DATA

FOR WHITE RIVER STATION 09306510

STATION ID	DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	DIS-SOLVED OXYGEN (MG/L)
09306510	11/18/83	1100	E560	791	--	--	--
	01/25/84	0950	E430	930	0.0	8.8	--
	02/03/84	1125	E460	820	0.5	7.3	--
	02/20/84	1156	E440	803	0.0	8.6	--
	02/28/84	1000	E380	776	0.0	7.2	10.0
	03/02/84	1200	E430	840	0.0	7.8	10.0
	03/21/84	1110	E1310	956	2.0	8.6	10.2
	03/26/84	0915	E1150	966	0.0	8.8	10.8
	04/06/84	1015	E790	998	7.9	7.6	9.8
	04/16/84	0915	E770	1070	9.0	8.0	9.4
	04/23/84	1115	E1160	905	9.4	8.2	9.4
	05/02/84	1019	E1100	1070	10.0	8.6	9.3
	05/11/84	0930	E1700	880	13.8	7.8	8.2
	05/15/84	1015	E4000	640	13.5	7.0	--
	06/04/84	0900	E4350	452	12.0	8.2	8.5
	06/11/84	1030	E4500	540	11.5	8.6	9.0
	06/27/84	0815	E3900	438	15.1	8.4	8.0
	07/09/84	1100	E3130	487	20.0	8.5	8.7
	08/03/84	1010	E1350	668	20.0	8.2	8.2
	08/16/84	0905	E890	660	20.5	9.0	7.2
	08/27/84	1058	E910	773	19.0	8.6	8.7
	09/04/84	0935	E770	700	16.5	9.0	8.8

LABORATORY WATER QUALITY DATA
FOR WHITE RIVER STATION 09306510

STATION NUMBER	DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	TURBI-DITY (NTU)	SUS-PENDED SOLIDS, RESIDUE @ 105 C (MG/L)
09306510	02/28/84	1000	E380	0.0	10.0	7.2	7.7	10	41	90
	04/16/84	0915	E770	9.0	9.4	8.0	8.3	--	--	1500
	06/04/84	0900	E4350	12.0	8.5	8.2	7.7	25	1200	2200
	09/04/84	0935	E770	16.5	8.8	9.0	8.3	--	--	292

STATION NUMBER	DATE	TIME	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25	TOTAL DISS., SOLIDS, RESIDUE @ 180c (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCAR. (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)
09306510	02/28/84	1000	776	360	545	554	324	121	203	6.0
	04/16/84	0915	1070	1160	800	807	443	211	232	--
	06/04/84	0900	452	470	345	313	191	59	132	200
	09/04/84	0935	700	620	510	480	278	87	191	--

STATION NUMBER	DATE	TIME	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS., (AS N) (MG/L)	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS., (MG/L AS N)	NITRITE PLUS NITRATE DISS., (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
09306510	02/28/84	1000	<1	2.1	<2	<0.01	0.10	<0.01	0.26	<0.01
	04/16/84	0915	--	8.3	--	<0.01	2.5	0.05	1.2	3.4
	06/04/84	0900	<1	5.5	4	<0.01	0.90	<0.01	0.63	2.3
	09/04/84	0935	--	5.0	--	<0.02	0.20	<0.01	0.57	0.27

STATION NUMBER	DATE	TIME	PHOS-PHORUS, ORTHO DISS., (AS P) (MG/L)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DISS., (MG/L)
09306510	02/28/84	1000	0.01	16	77	32	65	1.6	30	2.6
	04/16/84	0915	0.41	15	95	50	108	2.2	34	5.5
	06/04/84	0900	1.0	10	45	19	28	0.98	24	1.5
	09/04/84	0935	0.01	16	62	30	49	1.3	28	1.5

LABORATORY WATER QUALITY DATA
FOR WHITE RIVER STATION 09306510

STATION NUMBER	DATE	TIME	SULFATE, DISS., (MG/L)	CHLORIDE, DISS., (MG/L)	FLUORIDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	BORON, DISS., (UG/L)	ALUMINUM DISS., (UG/L)	ARSENIC DISS., (UG/L)
09306510	02/28/84	1000	224	16	0.3	<0.001	<0.2	110	23	<1
	04/16/84	0915	367	31	0.3	--	--	210	--	--
	06/04/84	0900	119	11	0.4	<0.001	<0.2	100	25	<1
	09/04/84	0935	196	10	0.3	--	--	120	--	--

STATION NUMBER	DATE	TIME	BARIUM, DISS., (UG/L)	BERYLLIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHROMIUM, DISS., (UG/L)	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MANGANESE, DISS., (UG/L)
09306510	02/28/84	1000	<100	<5	0.1	1	2	<10	4	10
	04/16/84	0915	--	--	--	--	--	--	--	--
	06/04/84	0900	<100	<5	<0.1	<1	1	40	<1	10
	09/04/84	0935	--	--	--	--	--	--	--	--

STATION NUMBER	DATE	TIME	MERCURY DISS., (UG/L)	MOLYBDENUM, DISS., (UG/L)	NICKEL, DISS., (UG/L)	SELENIUM DISS., (UG/L)	SILVER, DISS., (UG/L)	STRONTIUM, DISS., (UG/L)	VANADIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)
09306510	02/28/84	1000	<0.1	<1	2	<1	<0.2	970	2	28
	04/16/84	0915	--	--	--	--	--	--	--	--
	06/04/84	0900	<0.1	3	2	<1	<0.2	470	2	9
	09/04/84	0935	--	--	--	--	--	--	--	--

STATION NUMBER	DATE	TIME	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)
09306510	02/28/84	1000	--	--	--
	04/16/84	0915	--	--	--
	06/04/84	0900	<2.0	<10	<5.0
	09/04/84	0935	--	--	--

Plant Site Wash (Sta. No. 09306602)
- Discharge Manuscript
- Station Analysis
- Discharge Measurement Summary Sheet
- Mean Daily Discharge

Discharge Manuscript

09306602 - PLANT SITE WASH NEAR WATSON, UTAH
1984 WATER YEAR

Location: Lat 39° 56' 39", long 109° 11' 52", in NE 1/4 SE 1/4 SW 1/4 sec. 15, T10S, R24E, Uintah County, on right bank approximately 500 ft downstream of Plant Site Wash retention dam and 4,500 ft upstream from the White River.

Drainage Area: 0.08 mi^2

Water Discharge Record

Period of Record: August 1981 to current year.

Gauge: Stream-stage recorder. Altitude of gauge is 5,100 ft from topographic map.

Remarks: Records are considered to be fair overall.

Extremes for Period of Record: Maximum discharge 43 cfs August 2, 1982, from slope conveyance; minimum discharge no flow for most of the record.

Extremes for Current Year: Maximum discharge, 0.10 cfs Oct 2, minimum discharge, no flow for most of the year.

Station Analysis Discharge

09306602 PLANT SITE WASH NEAR WATSON, UTAH
1984 WATER YEAR

Equipment: Analog stage recorder (Leupold-Stevens) in a 48 inch CMP shelter over a 24 inch CMP stilling well. Staff gauges are attached inside and outside of the stilling well.

Gauge Height Record: Not related to streamflow. Water in the stilling well, Oct 1-2, March 16-21, and June 7 was attributed to local precipitation and snowmelt runoff from the bank adjacent to the stilling well. Channel cross-sections and level notes dated June 21, 1983 define a subchannel or low flow channel, approximately 17 feet streamward, in which stage can rise to 0.65 feet and remain out of contact with the stilling well. An intake trench between the low flow channel and the gauge is usually maintained but can fill quickly with rising stage.

The appearance of the stage chart, during the periods noted, were typical of the condition described in the preceding paragraph.

Rating: Stage-discharge relations are usually determined following flow events. One flow event was documented this year; however, field notes dated Oct. 6, 1983, did not provide hydrologic factors needed for an indirect calculation of peak discharge. Rating 2 was continued this year.

Discharge: An estimate of discharge for Oct. 2, 1983 was based on the assumption that the stage in the low flow channel did not exceed the recorded stage of 0.30 ft. The approximate discharge would be 0.10 cfs (Rating 2). If 0.10 cfs was sustained for 3 hours, mean daily discharge would be .01 cfs.

Remarks: Records very poor. Field notes throughout the year continued to state no evidence of flow passing the gauge. The extreme low flows expected from this very small drainage or from potential seepage from the Retention dam would leave very little evidence. Minor flow events may have been missed during the year.

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306602

DISCHARGE MEASUREMENTS OF Plant site Wash DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1983	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING SHIFT ADJ. FEET	RATING PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	TIME HOUR	MEAS. RATED	TEMP. AIR	TEMP. H_2O	REMARKS
	10/6	Hale					0										ISHum 0.30
	11/1	Hale					0										
	11/29	Hale					0										4" snow EC Recorder deactivated for winter
	1984																
	1/5	Hale					0										12" snow at gauge
	2/3	Hale					0										11" snow at gauge
	3/13	Hale					0										Float frozen in ice 10" snow
	3/21	Hale					0										8" snow in channel Start EC Recorder.
	3/29	Hale					0										
	4/5	Hale					0										No evidence of recent flow
	6/7	Hale					0										Water in stilling well. No flow past gauge
	7/5	Hale					0										No evidence of flow
	8/2	Hale					0										"
	10/2	Hale					0										"

COPIED BY HES COMPUTED BY HES CHECKED BY DHE

STATION NUMBER: 09306602 NAME: PLANT SITE WASH NEAR WATSON UT

DISCHARGE (CFS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAX.	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WTR YR 1984 TOTAL: 0.05 MEAN: 0.01 MAX: 0.05 MIN: 0.00 ACRE-FT: 0.10

Plant Site Wash Retention Pond
(Sta. No. RES-1)
- Station Manuscript
- Station Analysis
- Station Levels
- Reservoir Contents and Field Water Quality
- Laboratory Water Quality

Station Manuscript

RES-1 - PLANT SITE WASH RETENTION POND
1984 WATER YEAR

Location: Approximately 500 feet upstream of Plant Site Wash, near Watson, Utah (Sta. No. 09306602) on upstream face of dam.

Drainage: 1.28 mi^2.

Reservoir Contents Records

Period of Record: May 1984 to current year.

Gauge: Inclined enamel staff gauge. Elevation of 0.00 staff gauge is 5133.52 feet (MSL) from "As Built Plans".

Remarks: Extremes for current year: Maximum content observed 3.7 acre-feet July 10, from storage volume table; minimum content observed, 1.75 acre-feet May 29.

Station Analysis

PLANT SITE RETENTION POND (RES-1)

1984 WATER YEAR

Equipment: An inclined enamel staff gauge attached to a redwood plank embedded in a concrete foundation. Foundation also serves as walkway.

Record: Opportunistic staff gauge readings began May 8, 1984. Readings were made May 29, June 11, and July 2. Gauge readings were made more frequently, usually 3 to 5 days apart, throughout the remainder of the year.

Gauge Datum: Levels, dated 8/23/84, were run to calibrate the storage volume table (furnished by Parson's Engineering) to gauge datum. The inclined staff gauge readings above 15.00 (gauge datum) may require adjustments (see summary of levels attached).

Storage Capacity Table: A provisional storage capacity table, relating volume (in acre feet) to staff gauge readings ranging from 0 to 10 feet, was developed for computation of storage volume in the retention pond.

Storage Volume Computations: The volume of water in the retention pond on May 8, 1984 was 1.9 acre feet. The maximum storage recorded was 3.7 acre feet on July 10. The volume, of water stored gradually decreased during the summer to 2.7 acre feet on September 28.

Remarks: Records are poor. A survey of the water surface contour, dated October 18, 1984, confirmed inaccurate plotting of the as-built contour map.

LEVELS 8/23/84

PLANT SITE RETENTION POND - (RES-1)

Summary of levels run 8/23/84. Levels were run by H.E. Skjold and T.P. Landis.

1. RM #1 = Elevation 5188.98 feet (MSL) given. Bronze tablet set in a concrete monument adjacent to the left wall of the spillway and approximately 25 feet downstream from crest of dam.

2 RM #2 = Elevation (given) 5186.00 feet (MSL). Elevation (found) 5185.94 feet (MSL). Top of redwood plank embedded in concrete walkway on the upstream face of the dam.

3. 49.00 feet (staff gauge). Elevation 5182.25 feet (MSL).
4. 38.00 feet (staff gauge). Elevation 5171.44 feet (MSL).
5. 26.00 feet (staff gauge). Elevation 5159.46 feet (MSL).
6. 15.00 feet (staff gauge). Elevation 5148.51 feet (MSL).
7. 10.00 feet (staff gauge). Elevation 5143.50 feet (MSL).
8. 6.00 feet (staff gauge). Elevation 5139.52 feet (MSL).
9. 5.88 feet (staff gauge). Elevation 5139.40 feet (MSL).

Staff Gauge	Difference	Elevation	Difference
49.00 feet		5182.25	
38.00 feet	11.00 feet	5171.44	10.81
26.00 feet	12.00 feet	5159.46	11.98
15.00 feet	11.00 feet	5148.51	10.95
10.00 feet	5.00 feet	5143.50	5.01
6.00 feet	4.00 feet	5139.52	3.98
0.00 feet	6.00 feet	5133.52	6.00
	49.00	48.73	48.73

Summary of Levels

PLANT SITE WASH RETENTION POND (RES-1)
1984 WATER YEAR

Levels dated 8/22/84 and 8/23/84 were run by H.E. Skjold and T.P. Landis. All levels were referenced to the WRSP benchmark (elevation 5188.98 feet MSL). Elevations relating to random points on the staff gauge are as follows:

	Elevation (MSL)
Top of plank embedded in foundation -	5185.94
	given 5186.00

Staff Gauge	Corrected	
0.00 ft	0.00	5133.52
		given 5133.00
5.88	5.88	5139.40
6.00	6.00	5139.52
7.00	6.99	5140.51
15.00	14.99	5148.51
26.00	25.94	5159.46
38.00	37.92	5171.44
49.00	48.73	5182.25

A survey dated 10/18/84 was run by H.E. Skjold and J.W. Hale to determine the surface area of the retention dam pond. This survey was instigated by apparent discrepancies in the furnished (Parson's Enginering) contour map and by observing photographs of the retention pond. The shape of the pond, at elevations below 5145 feet (MSL), did not agree with the shape suggested by the "As Built" contours. The water surface contour at 5139.15 feet (MSL), calculated from the survey, confirmed discrepancies. Equipment needed to run a complete hydrographic and topographic survey was not available during the October visit.

RETENTION DAM POND

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

STATION NUMBER	DATE	TIME	CONTENTS (ACRE-FEET)	GAGE HEIGHT, FEET ABV DATUM	SPECIFIC CONDUCTANCE FIELD (UMHOS)	WATER TEMPERATURE (DEG C)	PH, FIELD (UNITS)	DISSOLVED OXYGEN (MG/L)
000RES-1	05/08/84	0910	1.90	3.97	3307	12.0	6.8	9.5
	05/29/84	0845	1.75	3.62	4436	19.0	7.8	8.6
	06/11/84	1220	2.85	5.84	3132	17.0	8.6	12.2
	07/02/84	1135	2.80	5.68	3396	25.5	8.6	10.4
	07/10/84	0850	3.70	6.89	3127	22.0	8.4	7.0
	07/19/84	0900	3.40	6.54	--	--	--	--
	07/25/84	0935	3.30	6.39	3600	23.5	8.4	6.5
	07/30/84	1120	3.20	6.29	--	--	--	--
	08/06/84	1245	3.05	6.14	--	--	--	--
	08/09/84	0938	3.00	6.07	--	--	--	--
	08/13/84	1305	2.95	5.96	--	--	--	--
	08/16/84	1215	2.90	5.90	4300	25.0	8.1	8.0
	08/20/84	0845	2.90	5.89	--	--	--	--
	08/27/84	1032	2.85	5.83	--	--	--	--
	08/31/84	0820	2.80	5.75	--	--	--	--
	09/04/84	0830	2.80	5.67	--	--	--	--
	09/07/84	0938	2.70	5.60	--	--	--	--
	09/10/84	1255	2.70	5.55	4215	19.0	8.6	8.8
	09/12/84	0910	2.80	5.67	4715	19.0	8.9	8.6
	09/17/84	1030	2.75	5.63	--	--	--	--
	09/21/84	0910	2.75	5.61	--	--	--	--
	09/28/84	0840	2.70	5.53	--	--	--	--

LABORATORY WATER QUALITY DATA
FOR THE RETENTION DAM POND (RES-1) AND THE SUMP BELOW DAM (SUMP-1)

STATION NUMBER	DATE	TIME	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	TURBI-DITY (NTU)	SUS-PENDED SOLIDS, RESIDUE @ 105 C (MG/L)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)
RES-1	05/08/84	0910	12.0	9.5	6.8	8.3	--	--	14	3307
	05/29/84	0845	19.0	8.6	7.8	--	--	--	--	4436
	07/25/84	0950	22.5	6.5	8.4	7.8	50	18	12	3600
SUMP-1	07/25/84	1000	21.0	--	8.8	7.6	50	90	82	654

STATION NUMBER	DATE	TIME	SPECI-FIC CONDUC-TANCE LAB, UMHS@25	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)
RES-1	05/08/84	0910	3810	2730	2793	600	467	133	--	--
	05/29/84	0845	--	--	--	--	--	--	--	--
	07/25/84	0950	3630	2950	3106	636	522	114	40	<1
SUMP-1	07/25/84	1000	700	510	446	105	0	200	110	<1

STATION NUMBER	DATE	TIME	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)
RES-1	05/08/84	0910	18	--	0.03	0.30	<0.01	8.9	0.02	<0.01
	05/29/84	0845	--	--	--	--	--	--	--	--
	07/25/84	0950	22	26	<0.02	1.0	0.28	3.6	<0.01	<0.01
SUMP-1	07/25/84	1000	25	17	0.03	2.5	<0.01	0.09	0.13	<0.01

STATION NUMBER	DATE	TIME	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DISS., (MG/L)	SUL-FATE, DISS., (MG/L)
RES-1	05/08/84	0910	9.0	120	73	680	12	71	2.8	1670
	05/29/84	0845	--	--	--	--	--	--	--	--
	07/25/84	0950	6.8	141	69	745	13	72	6.4	1900
SUMP-1	07/25/84	1000	34	37	3.0	105	4.5	61	32	136

LABORATORY WATER QUALITY DATA
FOR THE RETENTION DAM POND (RES-1) AND THE SUMP BELOW DAM (SUMP-1)

STATION NUMBER	DATE	TIME	CHLORIDE, DISS., (MG/L)	FLUORIDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUMINUM DISS (UG/L)	ARSENIC DISS., (UG/L)	BARIUM, DISS., (UG/L)
RES-1	05/08/84	0910	160	0.5	—	—	470	--	—	—
	05/29/84	0845	--	--	—	—	—	--	--	—
	07/25/84	0950	175	0.6	0.005	<0.2	650	14	<1	<100
SUMP-1	07/25/84	1000	9.0	0.3	0.001	<0.2	210	37	16	<100

STATION NUMBER	DATE	TIME	BERYLLIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHROMIUM, DISS., (UG/L)	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MANGANESE, DISS., (UG/L)	MERCURY DISS (UG/L)
RES-1	05/08/84	0910	—	—	—	—	—	—	—	—
	05/29/84	0845	--	--	—	--	—	—	--	—
	07/25/84	0950	<5	<0.1	5	3	20	<1	<10	<0.1
SUMP-1	07/25/84	1000	<5	0.1	1	6	40	<1	<10	<0.1

STATION NUMBER	DATE	TIME	MOLYBDENUM, DISS., (UG/L)	NICKEL, DISS., (UG/L)	SELENIUM DISS (UG/L)	SILVER, DISS., (UG/L)	STRONTIUM, DISS., (UG/L)	VANADIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)
RES-1	05/08/84	0910	—	—	—	—	—	—	—	—
	05/29/84	0845	--	—	—	--	—	—	—	26
	07/25/84	0950	22	3	5	<0.2	4400	9	12	—
SUMP-1	07/25/84	1000	11	2	<1	<0.2	780	10	15	6.0

STATION NUMBER	DATE	TIME	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS. RADON METHOD (PCI/L)	URANIUM DISS. DIRECT FLUORO-METRIC (PCI/L)
RES-1	05/08/84	0910	--	—	—	--
	05/29/84	0845	<10	<5	<0.50	48
	07/25/84	0950	—	—	—	—
SUMP-1	07/25/84	1000	12	<5	<0.50	—

Upper Southam Canyon Wash
(Sta. No. 09306605)
- No Data Collected

Southam Canyon Wash near Mouth, near Watson, Utah
(Sta. No. 09306610)
- Discharge Manuscript
- Station Analysis
- Discharge Measurement Summary Sheet
- Mean Daily Discharge

Discharge Manuscript

09306610 - SOUTHAM CANYON WASH NEAR MOUTH, NEAR WATSON, UTAH

1984 WATER YEAR

Location: Lat 39° 56' 50", long 109° 14' 06", in NW 1/4 NW 1/4 SE 1/4 sec. 17, T10S, R24E, Uintah County, on right bank approximately 500 ft upstream from mouth.

Drainage Area: 8.3 mi^2

Water Discharge Records

Period of Record: October 1974 to September 1984.

Gauge: Water-stage recorder. Altitude of gauge is 4,920 ft from topographic map.

Remarks: Records are fair.

Extremes for Period of Record: Maximum discharge, 440 cfs August 11, 1983, gauge height, 3.04 ft based upon slope area measurement; minimum discharge no flow for most of the record.

Extremes for Current Year: Maximum discharge, 74 cfs July 23, gauge height, 1.24 ft; minimum discharge no flow for most of the year.

Station Analysis

09306610 - SOUTHAM CANYON WASH NEAR WATSON, UTAH

1984 WATER YEAR

Equipment: Analog stage recorder (Leupold-Stevens) in a 48-inch CMP shelter over a 24-inch CMP stilling well. Staff gauges are attached to the inside and outside of the stilling well.

Gauge Height Record: The analog gauge height record was complete and provided a fair record of flow events through peak stage. Communication is usually lost on the recession of flow events as the float rests on entrapped sand and sediments in the stilling well.

Datum and Gauge Height Corrections: Last levels dated June 20, 1983. Pen adjustments were based on inside high marks.

Rating: The channel is the control for all stages. The sand streambed is subject to scour and fill.

Three slope conveyance indirect measurements, Nos. 50, 51, and 52 and 15 observations of no flow were made during the year. Measurement Nos. 50 and 51 were computed using a cross-sectional profile of the channel dated 7/10/84. Measurement No. 50 was calculated using a gauge height of 1.00 ft on the initial rise on July 23. A sudden drop in stage occurred followed by a rapid rise to 1.24 ft. at which Measurement No. 51 was calculated.

Measurement No. 52 was made based on a peak stage of 0.94 which occurred on July 26. The cross-section profile of channel at the gauge, dated Aug. 2, was used in this computation.

Rating No. 4, considered the base rating, was continued from last year. Shift curve No. 1, to rating 4, was based on a tangent extending downward from Measurement Nos. 48 and 49. Shift curve No. 1 was used Oct 1, 1983 to July 23, 1984 (0030 hrs). Shift adjustments were applied throught the flow event, July 23, based on Measurement Nos. 50 and 51. Shift curve No. 2 to Rating 4 was in effect on the recession of the July 23 flow event and was continued in use to September 30, 1984. Shift diagrams are on file.

Shift Table No. 1		Shift Table No. 2	
g.h.	Shift	g.h.	Shift
0.10	-.19	0.40	-.50
.20	-.18	.50	-.47
.30	-.17	.60	-.44
.40	-.17	.70	-.41
.50	-.16	.80	-.38
.60	-.15	.90	-.35
.70	-.15	1.00	-.32

Discharge: Flow events occurred on Oct 2, 7, June 7, July 23, 26, Aug 20 and Sept 25. The analog recorder provided a satisfactory stage record through peak events and partial record of the recessional side of the events. Estimates of discharge were based on a continuation of the recessional trend suggested by the stage graph. Application of shift adjustments was based on stage as outlined in the rating paragraph.

Remarks: Records are fair for 90 percent of the total annual discharge.

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306610

DISCHARGE MEASUREMENTS OF Southam Canyon Wash DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1983	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING SHIFT ADJ. FEET	RATING PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	TIME HOUR	MEAS. RATED	TEMP. AIR	TEMP. H_2O	REMARKS
	10/4	Hale					0										ISHWM 0.44 X-section 6' D.S.
	10/31	Hale					0										ISHWM 0.38
	12/1	Hale					0										5" snow in Channel
	1984																
	1/3	Hale					0										12" snow in Channel
	2/1	Hale					0										11" snow in Channel
	3/12	Hale					0										10" snow - melting around Stilling well
	3/19	Hale					0										Snow in channel
	4/3	Hale					0										
	5/4	Hale					0										X-section at gauge
	6/8	Hale					0										evidence of flow ISHWM 0.54
	7/5	Hale					0										
	7/10	Hale					0										evidence of flow X-section @ gauge
50	7/23		20.9	11.3	3.55	1.00	40			S.C.	X-section			7/10/84			peak @ 0045 hours
51	7/23		21.4	16.5	4.48	1.24	74			S.C.	X-section			7/10/84			Peak @ 0100 hrs.
52	7/26		19.2	6.1	2.62	0.94	16			SC	X-section			8/2/84			Peak @ 1645 hours
	8/2	Hale					0										ISHWM 0.94 X-section at gauge
	8/21	Hale					0										ISHWM 0.56
	9/13	Hale					0										ISHWM 0.50

COPIED BY HES COMPUTED BY HES CHECKED BY DHC

DAILY VALUES VTN ENVIRONMENTAL SCIENCES DIVISION PROCESS DATE: 01/08/85

STATION NUMBER: 09306610 NAME: SOUTHAM CANYON WASH AT MOUTH NR WATSON, UT

DISCHARGE (CFS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.8	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	---	---
TOTAL	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	2.2	0.01	0.03
MEAN	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.01	0.01
MAX.	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	1.8	0.01	0.03
MIN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.2	4.4	0.02	0.06

WTR YR 1984 TOTAL: 3.0 MEAN: 0.01 MAX: 1.8 MIN: 0.00 ACRE-FT: 5.9

White River above Asphalt Wash
(Sta. No. 09306615)
- Field Water Quality
- Laboratory Water Quality

FIELD WATER QUALITY DATA

FOR WHITE RIVER STATION 093066615

STATION ID	DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	DIS-SOLVED OXYGEN (MG/L)
09306615	11/03/83	0850	E590	720	7.5	8.1	9.6
	11/15/83	0840	E600	743	3.5	8.5	10.6
	12/05/83	1300	E545	735	0.0	7.8	11.0
	12/19/83	1045	E470	825	0.0	7.7	11.1
	01/12/84	1315	E300	820	0.0	8.2	11.2
	02/07/84	1000	E480	825	0.0	7.2	11.0
	03/27/84	1150	E910	960	1.0	8.1	11.5
	04/02/84	1305	E760	1050	5.0	7.8	10.3
	04/16/84	1245	E820	1090	12.0	7.8	9.0
	04/25/84	1030	E1110	870	9.6	8.2	9.4
	05/03/84	1140	E1190	1070	9.6	8.1	9.2
	05/18/84	0955	E5100	580	13.2	8.0	8.2
	05/23/84	1050	E5300	510	13.8	8.2	8.4
	05/30/84	1000	E4900	450	14.2	8.2	8.3
	06/04/84	1200	E4450	468	13.5	8.0	8.5
	07/03/84	1120	E3100	448	18.5	8.1	7.8
	07/16/84	0920	E1900	592	20.0	8.1	9.2
	08/01/84	1145	E1360	640	21.0	8.8	7.0
	08/13/84	1100	E1000	593	22.0	7.0	9.2
	09/04/84	1215	E830	696	18.0	8.8	8.0

09306615 - WHITE RIVER ABOVE ASPHALT WASH

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	TURBI-DITY (NTU)	SUS-PENDED SOLIDS, RESIDUE @ 105 C (MG/L)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25
04/16/84	1245	E920	12.0	9.0	7.8	8.3	--	--	1650	1090	1180
06/04/84	1200	E4450	13.5	8.5	8.0	7.8	22	1400	2720	468	490
09/04/84	1215	E820	18.0	8.0	8.9	9.2	--	--	294	696	600

DATE	TIME	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
04/16/84	1245	815	830	447	215	232	--	--	8.1	--	0.17
06/04/84	1200	330	287	182	60	128	190	<1	8.5	<5	0.15
09/04/84	1215	505	481	283	92	191	--	--	5.0	--	<0.01

DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO
04/16/84	1245	2.5	0.04	0.92	3.4	0.87	15	95	51	111	2.3
06/04/84	1200	2.5	<0.01	0.51	3.0	0.88	11	44	19	28	0.89
09/04/84	1215	0.20	<0.01	0.53	0.29	<0.01	16	64	30	51	1.3

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PERCENT SODIUM	POTASSIUM, DISS., (MG/L)	SULFATE, DISS., (MG/L)	CHLORIDE, DISS., (MG/L)	FLUORIDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUMINUM DISS (UG/L)	ARSENIC DISS., (UG/L)
04/16/84	1245	35	5.4	383	34	0.3	--	--	220	--	--
06/04/84	1200	24	1.6	99	8.0	0.2	<0.001	<0.2	90	20	<1
09/04/84	1215	28	1.8	194	10	0.3	--	--	120	--	--

DATE	TIME	BARIUM, DISS., (UG/L)	BERYLLIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHROMIUM, DISS., (UG/L)	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MANGANESE, DISS., (UG/L)	MERCURY DISS (UG/L)	MOLYBDENUM, DISS., (UG/L)
04/16/84	1245	--	--	--	--	--	--	--	--	--	--
06/04/84	1200	<100	<5	<0.1	<1	2	40	<1	10	<0.1	3
09/04/84	1215	--	--	--	--	--	--	--	--	--	--

DATE	TIME	NICKEL, DISS., (UG/L)	SELENIUM DISS (UG/L)	SILVER, DISS., (UG/L)	STRONTIUM, DISS., (UG/L)	VANADIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS. RADON METHOD (PCI/L)
04/16/84	1245	--	--	--	--	--	--	--	--	--	--
06/04/84	1200	1	<1	<0.2	460	1	14	2.0	<10	<5	--
09/04/84	1215	--	--	--	--	--	--	--	--	--	--

Asphalt Wash near Mouth, near Watson, Utah
(Sta. No. 09306625)
- Station Analysis
- Discharge Measurement Summary Sheet
- Mean Daily Discharge

Discharge Manuscript

09306625 - ASPHALT WASH NEAR MOUTH,NEAR WATSON, UTAH

1984 WATER YEAR

Location: Lat 39° 56' 00", long 109° 16' 00", in NW 1/4 SE 1/4 NE 1/4 sec. 24, T10S, R23E, Uintah County, on right bank approximately 1 mi upstream from mouth and 6.7 mi northwest of Watson.

Drainage Area: 97.5 mi^2

Water Discharge Records

Period of Record: October 1974 to September 1984 (USGS)
October 1983 to September 1984 (WRSOC)

Gauge: Water-stage recorder. Altitude of gauge is 4,910 ft from topographic map.

Remarks: Average discharge - 10 years, 0.20 ft^3/s, 145 acre-ft/yr

Extremes for Period of Record: Maximum discharge, 3,680 ft^3/s September 5, 1982, gauge height 9.70 ft based upon slope area measurement; minimum discharge no flow for most of the record.

Extremes for Current Year: Maximum discharge, 125 $ft^3/$, July 24, 1984, gauge height 1.62 ft based on inside high water mark. Minimum discharge, no flow most of the year.

Station Analysis

09306625 - ASPHALT WASH NEAR MOUTH, NEAR WATSON, UTAH

1984 WATER YEAR

Equipment: Analog (Leupold and Stevens) stage recorder in a 48-inch CMP shelter over a 24-inch CMP stilling well. Staff gauges are attached inside and outside of the stilling well.

Gauge Height Record: The analog recorder, installed October 11, 1983, provide a complete and satisfactory record of flow events except during station shut-down December 5-March 15. Flow events were recorded March 18, 19, June 7, 9, 20, July 10, 20, 22-24, 26, August 1, 20, 23 and September 11. Communication was usually lost on the recession of flow events due to silt. Pen corrections were based on high water marks found inside the stilling well.

Rating: The channel is the control for all stages. The sand streambed is subject to scouring and filling.

Three slope conveyance indirect measurements (Nos. 1, 2, and 3), 1 discharge measurement (No. 4), and 9 observations of no flow were made during the year. Rating No. 1 was developed using a straight logarithmic line through Measurements 3 and 4 and a slope area dated September 5, 1982 (USGS). Rating No. 1 was used for all flow events. A shift adjustment of -0.03 ft, based on Measurement No. 1, was applied March 19 and June 7. An adjustment of 0.07 ft, based on Measurement No. 2, was used June 9, 20, July 10, 20, 22 and 23. Rating No. 1 was used direct July 24, 26, August 1, 20 and 23, and Sept 11.

Discharge: Mean daily discharge was computed using the analog chart and Rating No. 1 with shifts applied as outlined in the rating paragraph. March 18 was estimated because the stage record was affected by snow in the channel. Estimated discharge was based on comparison with discharge computed March 19 and precipitation records. Mean daily discharge computations for each flow event were partially estimated for the portion of the recession when communication was lost. These partial day estimates were usually a relatively small percentage of the mean daily discharge.

Remarks: Records are fair due to estimating and questionable quality of indirect measurement calculations that were based on assumed energy gradients.

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306625

DISCHARGE MEASUREMENTS OF Asphalt Wash at mouth DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1983	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING / SHIFT ADJ. FEET	RATING / PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	S&F TIME HOUR	MEAS. RATED	TEMP. AIR °C	TEMP. H_2O °C	REMARKS
	10/11	Hale					0										Begin WRSP Stage Record
	10/31	Hale					0										No evidence of Flow
	12/5	Hale					0										Closed Station For Winter
	1984																
	3/15	Hale					0										10" snow in Channel
1	3/19		18.5			0.83	13	-.03	3.7	S.C.							X-section dated
	4/2	Hale					0										
	5/4	Hale					0										
2	6/9		21.5	4.82	1.76	0.64	8.5	+.07		S.C							X-section dated June 12
	6/12						0										X-section at gauge
	7/3						0										Chart pulled 7/6/84
3	7/24		25.0	26.6	4.51	1.62	125	0	3.5	S.C.							X-section dated 10/15/84
4	8/1	Hale	4.4	.74	.63	0.37	0.47	0	4.1	.6	16	0	1200 1220	P	26	30	
	9/6	Hale					0										
	10/15	Hale					0										X-section at gauge

COPIED BY HES COMPUTED BY HES CHECKED BY

STATION NUMBER: 09306625 NAME: ASPHALT WASH AT MOUTH, NR. WATSON, UT.

DISCHARGE (CFS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.0	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.15	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	2.9	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.1	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	2.0	4.1	3.2	0.11
MEAN	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.07	0.14	0.11	0.01
MAX.	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	1.0	3.1	2.9	0.09
MIN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00	3.9	8.2	6.3	0.22

WTR YR 1984 TOTAL: 9.8 MEAN: 0.03 MAX: 3.1 MIN: 0.00 ACRE-FT: 19

White River below Asphalt Wash, near Watson, Utah
(Sta. No. 09306700)

- Discharge Manuscript
- Station analysis
- Discharge Measurement Summary Sheet
- Mean Daily Discharge
- Daily Water Temperature
- Daily Specific Conductance
- Laboratory Water Quality Data
- Field Water Quality and Suspended Sediment Data

Discharge Manuscript

09306700 - WHITE RIVER BELOW ASPHALT WASH, NEAR WATSON, UTAH

1984 WATER YEAR

Location: Lat 39° 55' 51", long 109° 17' 30", in NE 1/4 SW 1/4 SE 1/4 sec. 23, T10S, R23E, Uintah County, on left bank approximately 1.25 mi downstream of Asphalt Wash and approximately 5.5 mi upstream of Atchees Wash.

Drainage Area: 4, 130 mi^2

Water Discharge Records

Period of Record: October 1974 to September 1984.

Gauge: Water-stage recorder. Altitude of gauge is 4,880 ft from topographic map.

Remarks: Records are considered to be fair.

Average Discharge: 10 yrs, 782 cfs, 566,190 acre-ft/yr.

Extremes for Period of Record: Maximum discharge, 6,420 cfs June 9, 1984, gauge height, 10.32 ft; minimum discharge 17 cfs, July 3, 1977 estimated from mean daily discharge.

Extremes for Current Year: Maximum discharge, 6,420 cfs June 9, gauge height, 10.32 ft; minimum discharge 181 cfs January 2, gauge height 3.75 ft (full ice cover ratio .39).

Station Analysis

09306700 - WHITE RIVER BELOW ASPHALT WASH NEAR WATSON, UTAH

1983 WATER YEAR

Equipment: Digital and analog (Leupold-Stevens) stage recorders are driven by a servo-manometer system. A cable way is located approximately 50 feet downstream. Outside staff gauge on left bank.

Gauge Height Record: Gauge height records began Oct 5, 1983 following relocation of the gauge approximately 150 feet downstream from last year's monitoring site. Last year's site became inoperative due to heavy silt deposition.

The digital recorder provided a complete and satisfactory record throughout periods free of orifice silting. The analog recorder provided a basis for gauge height interpretation through periods of false surging or "painting" of the chart caused by orifice silting. These periods were intermittent through March, April, May and June. The silting problem was continuous throughout August and September. Gauge heights were computed using the bottom of the "painted" pen trace. Periods of lost record caused by extreme surging and electronic malfunction were as follows: April 1-3, May 23-31, June 24-July 3, and Sept 15-20.

Datum Corrections: The outside staff was set to read the same gauge height as the cantilever gauge at last year's site. Gauge datum was equal to last year's datum minus the unknown fall of the water surface elevation between the old and new sites, even through discharges are equivalent.

Levels dated 8/23/84 found the water surface at the old and new sites 5.00 feet and 4.85 feet, respectively. The cantilever gauge read 5.33 feet indicating a settling or lowering of the cantilever framework.

Pen corrections and recorder corrections applied are noted on the analog chart and the digital primary printout. Following destruction of the outside staff, in late May or early June, all corrections were applied to recorder readings in the form of shifts.

Rating: The channel is about 120 ft wide at low flow and 160 ft wide at bank full stage (11 ft). The gauge is located on the left bank near the termination point of a bend. The channel is fairly straight for approximately 1,000 ft downstream. The control is subject to shifting caused by scouring and filling and changes in the configuration of the channel bed. Fifteen discharge measurements, Nos. 274-288, were made during the year. The measurements cover nearly the entire range of flow during the water year. All measurements made this year and No. 289, 1985 water year, were used in this analysis. Shifts to rating No. 9 ranged from minus 0.44 to minus 0.47 ft until ice began to form. Following ice breakup, shifts ranged from minus 0.19 ft to minus 0.38 ft. Shift adjustments were based on a time proration through May 12. Shifts were decreased as stage rose through May 23. Shift distribution was on a time based proration for the remainder of the year. Rating No. 9 was in effect all year.

Discharge: The digital primary was used for computation of mean daily discharges from Oct 6, 1983 to July 31, 1984. The analog chart was used from Aug 1 to Sept 30. Intermittent periods were recomputed, for ice effect and silting, using special methods as follows:

Oct 2-5: Estimated
Jan 17-Mar 20: Adjusted for full ice cover
Mar 21-24 and 29-31: Analog chart
Apr 1-3, May 23-31: Estimated
June 12-18: Analog chart
June 24-July 3: Estimated
Aug 1-Sept 30: Analog chart

Special comutations for ice effect were based on the formula $Q = Qa \left(\frac{Qm}{Qr}\right)$.

Where Qa is the discharge from open-water (ice free) rating curve corresponding to the daily mean gauge height. Qm is the measured discharge. Qr is the discharge from the open water rating curve corresponding to the gauge height of the discharge measurement.

The use of the analog chart for periods of false surging is described in the gauge height paragraph.

Estimated discharge for periods of no record were based on discharge measurements at 09306700 and 09306500 and on hydrographic interpretation between measurements and periods of record.

Remarks: Records fair due to periods of questionable records and absence of supportive field data such as high water marks and reference to actual gauge datum following loss of the outside staff gauge.

VTN CONSOLIDATED, INC.
Environmental Sciences Division

DISCHARGE MEASUREMENT SUMMARY SHEET

STATION NUMBER 09306700

DISCHARGE MEASUREMENTS OF WHITE RIVER BELOW ASPHALT WASH DURING THE YEAR ENDING SEPT. 30, 1984

NO.	DATE 1983	MADE BY	WIDTH FEET	AREA SQ.FT.	MEAN VELOCITY FPS	GAGE HEIGHT FEET	DISCHARGE CFS	RATING 09 SHIFT ADJ. FEET	RATING 09 PERCENT DIFF.	METHOD	NUMBER MEAS. SECTIONS	GAGE HEIGHT CHANGE FEET	S+F TIME HOUR	MEAS. RATED	TEMP. AIR °C	TEMP. H_2O °C	REMARKS
274	10/1	J.W.HALE	146	223	2.52	4.56	565	-.44		.2.6 .8	29	0	0930 1040	F	12.5	11.0	
275	10/20	"	142	268	2.48	4.80	665	-.46		.2.6 .8	29	0	1115 1220	F	14.0	8.0	
276	11/3	"	140	243	2.41	4.64	586	-.47		.2.6 .8	27	0	1025 1110	F	8.0	7.5	
277	12/5	"	136	226	2.39	4.62	545	-.54		.2.6 .8	27	-.01	1120 1210	G	-5.0	0	ice 4-5 ft out from banks
278	1984 1/12	"	93	161.9	1.91	5.49	302	-2.00		.2.6 .8	24	0	1200 1300	—	-6.0	0	50 % ice cover
279	2/7	"	138	225.5	2.32	5.55	481	-1.61		.6	24	0	1050 1140	F	-8.0	0	0.5.S 5.57 100 % ice cover
280	2/29	"	118	142.7	2.37	5.56	340	-1.97		.6	29	-.01	1300 1400	F	-5.0	0	Sed. Samples 100 % ice cover
281	3/27	"	140	275	3.34	5.18	920	-.36		.2.6 .8	.30	-.08	0950 1040	F	4.0	1.0	Free of ice
282	4/2	"	143	235.9	3.35	4.90	792	-.38		.2.6 .8	27	+.01	1130 1215	F	6.5	4.5	
283	4/17	"	144	253	3.26	4.84	826	-.19		.2.6 .8	30	+.05	1115 1225	F	25.0	12.0	
284	5/3	"	145	324	3.69	5.54	1190	-.28		.2.6 .8	28	+.02	0905 0955	G	8.0	9.0	0.5.S 5.53
285	6/6	"	155	970	4.97	*9.06	4820	+.22		2.6 .8	28	+.08	1115 1315	F	12.0	13.0	Sed. Samples * Digital G.S.S. destroyed
286	7/3	"	151	653	4.73	7.28	3090	+.37		.2.6 .8	28	0	0920 1015	F	19.0	18.0	
287	8/1	"	147	376	3.59	5.89 5.60	1360	+.39 -.09		.2.6 .8	31	0	1000 1050	F	23.0	20.0	
288	9/5	"	144	285	2.74	4.46 4.91	783	+.11 -.34		.2.6 .8	27	-.04	1225 1315	R	24.0	17.2	Sed samples
289	10/1	"	145	290	2.74	4.92	724	-.46		.2.6 .8	28	0	1000 1100	F	10.0	12.0	continuous recording equipment removed

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STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

DISCHARGE (CFS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	555	587	569	181	470	361	920	1100	4770	3600	1380	778
2	950	591	564	305	430	417	830	1100	5080	3400	1430	806
3	880	591	560	341	460	445	840	1300	5550	3150	1360	861
4	820	587	555	290	460	474	700	1410	4530	2810	1250	833
5	780	582	547	208	470	479	745	1290	4870	2650	1250	775
6	740	578	533	235	460	461	872	1320	4850	2490	1220	778
7	725	573	501	337	490	413	970	1370	5520	2300	1290	680
8	705	591	461	317	470	437	970	1390	5830	2160	1220	720
9	690	636	501	295	460	461	922	1320	6250	2130	1220	695
10	680	660	560	302	490	515	1080	1400	5290	2250	1210	690
11	660	623	569	291	470	600	1010	1750	4400	2320	1160	690
12	665	609	569	298	470	660	1070	2190	4240	2130	1100	979
13	660	614	551	242	480	720	946	2750	4070	2020	1010	988
14	660	605	537	260	460	730	839	3360	4010	1900	888	922
15	725	600	528	309	470	715	806	3900	4130	1960	800	850
16	730	600	524	298	480	844	795	4470	4400	1900	885	800
17	690	578	492	250	470	934	833	4880	4590	1840	916	780
18	655	582	497	220	440	860	928	5150	4470	1720	916	760
19	645	587	497	280	440	1050	1200	5350	4220	1650	1210	760
20	655	591	546	320	440	1100	1530	5040	4000	1610	1270	790
21	655	587	528	340	410	1350	1540	5250	3950	1530	1410	860
22	641	591	333	350	380	1590	1360	5370	3960	1480	1160	952
23	636	573	349	360	360	1520	1140	5300	3970	1470	1070	817
24	623	551	298	400	370	1050	1070	5000	3900	1600	1000	899
25	618	537	333	430	400	1110	1140	5000	3900	1500	976	756
26	618	569	337	450	390	1150	1530	5600	4250	1570	982	705
27	609	587	235	460	380	952	1610	5900	3900	1530	916	778
28	609	551	199	460	380	844	1340	5500	3500	1510	861	725
29	609	555	249	480	350	855	1250	5000	3600	1440	861	695
30	600	551	277	480	---	940	1170	4800	3800	1410	861	720
31	591	---	239	490	---	940	---	4800	---	1390	806	---
TOTAL	21079	17617	14038	10279	12700	24977	31956	109360	133800	62420	33888	23842
MEAN	680	587	453	332	438	806	1065	3528	4460	2014	1093	795
MAX.	950	660	569	490	490	1590	1610	5900	6250	3600	1430	988
MIN.	555	537	199	181	350	361	700	1100	3500	1390	800	680
AC-FT	41810	34943	27844	20388	25190	49592	123810	67217	47291			

WTR YR 1984 TOTAL: 495956 MEAN: 1355 MAX: 6250 MIN: 181 ACRE-FT: 983729

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.0	8.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
2	---	---	---	10.0	7.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0
3	---	---	---	9.0	7.5	8.5	0.0	0.0	0.0	0.0	0.0	0.0
4	---	---	---	9.5	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
5	---	---	---	9.0	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.5	11.0	12.5	9.0	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
7	15.0	12.0	13.5	7.5	6.5	7.0	0.5	0.0	0.0	0.0	0.0	0.0
8	15.0	13.0	14.0	8.0	5.0	7.0	0.5	0.0	0.0	0.0	0.0	0.0
9	16.0	12.5	14.0	5.0	3.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
10	15.5	13.5	14.0	5.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
11	14.5	12.0	13.0	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
12	13.5	10.5	12.0	5.5	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
13	13.0	10.0	11.5	6.0	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
14	13.0	11.0	12.0	6.0	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
15	12.0	9.0	10.5	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.0	8.5	10.0	4.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
17	11.0	8.5	10.0	4.5	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
18	12.5	9.5	11.0	5.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
19	11.5	8.5	10.0	4.0	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
20	10.5	7.5	9.0	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
21	10.5	7.0	9.0	4.0	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
22	10.5	7.5	9.0	3.5	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
23	10.5	7.5	9.0	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
24	10.5	9.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	10.0	7.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	9.0	6.0	7.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	9.0	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	9.0	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	9.5	6.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	9.0	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	10.5	8.0	9.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH:	---	---	---	10.0	0.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.5	5.0	9.5	8.5	9.0
2	0.0	0.0	0.0	0.0	0.0	0.0	6.5	5.5	6.0	10.5	9.0	9.5
3	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4.5	5.5	12.0	9.0	10.5
4	0.0	0.0	0.0	0.0	0.0	0.0	8.0	5.0	6.5	11.5	9.5	10.5
5	0.0	0.0	0.0	0.0	0.0	0.0	9.0	6.5	8.0	12.5	9.0	10.5
6	0.0	0.0	0.0	0.0	0.0	0.0	9.5	7.5	8.5	11.0	9.5	10.0
7	0.0	0.0	0.0	0.0	0.0	0.0	11.5	7.5	9.5	10.5	8.5	9.5
8	0.0	0.0	0.0	0.0	0.0	0.0	11.5	7.5	10.0	10.5	9.5	10.0
9	0.0	0.0	0.0	0.0	0.0	0.0	10.0	8.0	9.0	14.0	9.5	12.0
10	0.0	0.0	0.0	0.0	0.0	0.0	9.0	6.5	8.0	14.5	11.0	12.5
11	0.0	0.0	0.0	0.0	0.0	0.0	9.0	6.5	7.5	16.5	13.0	14.5
12	0.0	0.0	0.0	0.0	0.0	0.0	8.5	5.0	7.0	17.0	14.0	15.5
13	0.0	0.0	0.0	0.0	0.0	0.0	10.5	6.0	8.0	16.5	14.5	15.5
14	0.0	0.0	0.0	0.0	0.0	0.0	11.5	6.5	9.0	15.0	13.5	14.5
15	0.0	0.0	0.0	0.0	0.0	0.0	12.5	7.5	10.5	15.0	13.5	14.5
16	0.0	0.0	0.0	0.0	0.0	0.0	14.0	8.5	11.5	14.5	13.0	13.5
17	0.0	0.0	0.0	0.0	0.0	0.0	14.5	10.0	12.5	13.5	12.0	13.0
18	0.0	0.0	0.0	0.0	0.0	0.0	15.5	11.5	13.5	13.0	13.0	13.0
19	0.0	0.0	0.0	0.0	0.0	0.0	14.0	11.0	12.5	14.5	12.0	13.0
20	0.0	0.0	0.0	0.0	0.0	0.0	11.0	9.5	10.0	14.5	12.0	13.5
21	0.0	0.0	0.0	0.0	0.0	0.0	9.5	8.0	9.0	14.0	13.5	14.0
22	0.0	0.0	0.0	0.0	0.0	0.0	10.0	8.0	9.0	14.5	13.0	14.0
23	0.0	0.0	0.0	0.0	0.0	0.0	11.5	7.5	10.0	16.0	13.0	14.5
24	0.0	0.0	0.0	2.0	0.0	0.5	12.5	10.0	11.0	16.0	15.5	15.5
25	0.0	0.0	0.0	2.5	0.0	1.0	11.5	9.0	10.0	15.5	14.5	15.0
26	0.0	0.0	0.0	2.5	0.0	1.0	9.0	7.5	8.0	15.5	14.5	15.0
27	0.0	0.0	0.0	2.5	0.0	1.0	7.5	6.5	7.0	15.5	15.0	15.0
28	0.0	0.0	0.0	4.0	0.0	2.0	7.5	7.0	7.0	15.5	14.5	15.0
29	0.0	0.0	0.0	3.5	1.5	2.5	7.5	7.0	7.5	15.0	14.5	15.0
30	---	---	---	3.0	0.5	2.0	9.0	7.5	8.0	15.5	14.5	15.0
31	---	---	---	6.0	2.5	4.0	---	---	---	15.5	15.0	15.0
MONTH:	0.0	0.0	0.0	6.0	0.0	0.5	15.5	4.5	9.0	17.0	8.5	13.0

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

TEMPERATURE (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	15.0	15.0	17.5	17.0	17.5	22.0	19.5	20.5	19.5	18.0	19.0
2	15.0	14.0	14.5	17.5	17.0	17.5	22.0	19.0	20.5	19.5	17.5	18.5
3	15.0	14.5	14.5	17.5	17.0	17.5	22.0	19.0	20.5	19.5	17.5	18.0
4	14.5	14.0	14.0	18.0	17.5	17.5	22.0	19.0	20.5	19.0	17.0	18.0
5	14.0	13.5	14.0	18.0	17.5	17.5	21.0	19.5	20.0	19.5	17.0	18.0
6	13.5	12.5	13.0	18.0	17.5	17.5	21.5	18.0	19.5	19.0	16.0	17.5
7	12.5	12.0	12.0	18.0	17.5	17.5	22.0	18.5	20.0	18.0	15.0	16.5
8	12.0	12.0	12.0	17.5	17.0	17.0	22.0	18.5	20.5	17.5	13.5	16.0
9	12.0	11.5	11.5	17.5	17.0	17.5	22.0	18.5	20.5	19.5	14.5	17.0
10	12.0	11.5	11.5	18.0	17.5	17.5	22.5	19.0	21.0	20.0	15.5	18.0
11	13.0	12.0	12.5	18.5	17.5	18.0	22.5	19.5	21.0	18.5	16.5	17.5
12	14.0	13.0	13.0	18.5	18.0	18.0	22.5	19.5	21.0	18.5	16.0	17.0
13	15.0	14.0	14.5	18.5	18.0	18.5	22.0	19.5	21.0	20.0	16.0	18.0
14	15.0	14.5	15.0	18.0	17.5	18.0	22.0	20.5	21.5	20.0	16.5	18.5
15	15.5	15.0	15.5	18.5	18.0	18.0	22.0	20.5	21.0	20.5	16.5	18.5
16	15.5	15.0	15.5	19.0	18.5	18.5	22.0	20.0	21.0	21.0	17.5	19.0
17	15.5	15.0	15.0	19.0	18.5	19.0	21.5	20.0	21.0	20.5	17.0	19.0
18	15.5	15.0	15.0	19.0	18.5	19.0	21.5	20.0	21.0	20.5	17.0	18.5
19	15.5	15.0	15.0	19.0	18.5	19.0	21.0	19.5	20.5	20.5	17.0	18.5
20	15.0	15.0	15.0	19.5	19.0	19.0	20.0	18.5	19.0	19.5	16.5	18.0
21	15.5	15.0	15.0	19.5	18.5	19.0	18.5	16.5	17.5	19.5	16.5	18.0
22	16.0	15.5	15.5	19.0	19.0	19.0	19.5	17.5	18.0	18.5	15.5	16.5
23	16.5	16.0	16.0	19.5	19.0	19.0	19.5	18.5	19.0	18.0	14.5	16.5
24	16.5	16.0	16.0	19.5	18.5	19.0	19.5	17.5	18.5	17.0	14.5	15.5
25	16.5	16.5	16.5	19.5	18.5	19.0	19.0	18.0	18.5	15.0	12.0	13.5
26	16.5	16.5	16.5	20.0	18.5	19.5	19.0	17.5	18.5	14.0	11.0	12.5
27	16.5	16.0	16.5	19.5	18.5	19.0	19.5	18.0	19.0	16.0	11.5	13.5
28	17.5	16.5	17.0	19.5	18.5	19.0	20.0	18.5	19.5	15.0	12.0	13.5
29	17.5	17.0	17.0	19.5	19.0	19.0	20.0	18.5	19.5	14.5	10.0	12.5
30	17.5	17.5	17.5	20.0	19.0	19.5	20.5	18.5	19.5	15.0	10.0	12.5
31	---	---	---	20.0	19.0	19.0	20.5	18.5	19.5	---	---	---
MONTH:	17.5	11.5	14.5	20.0	17.0	18.5	22.5	16.5	20.0	21.0	10.0	17.0

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	739	711	719	770	732	744	809	783	792
2	---	---	---	739	707	721	770	736	749	827	804	812
3	---	---	---	728	715	719	741	713	726	839	827	834
4	---	---	---	751	720	732	725	700	715	830	794	809
5	---	---	---	733	720	727	749	708	723	838	800	818
6	---	---	---	737	720	728	783	747	756	884	838	861
7	---	---	---	737	726	731	803	768	787	915	886	904
8	---	---	---	731	722	728	801	770	783	894	847	867
9	---	---	---	901	730	780	797	776	786	840	832	835
10	---	---	---	820	755	782	783	749	766	837	829	834
11	---	---	---	799	770	786	780	745	761	838	831	834
12	793	718	741	829	796	813	770	751	758	842	834	838
13	783	714	747	818	804	809	774	751	761	847	840	842
14	842	724	735	814	799	807	786	758	769	860	847	855
15	876	735	771	816	786	800	772	760	766	862	848	856
16	785	732	759	795	777	785	778	758	767	852	833	841
17	806	755	778	804	768	784	777	754	767	845	832	838
18	783	755	771	809	768	796	798	758	787	846	832	838
19	765	724	748	810	775	793	821	796	810	869	846	855
20	752	591	664	791	772	780	824	798	810	922	869	896
21	717	613	688	773	755	767	867	824	843	946	922	936
22	743	700	731	776	762	769	905	867	894	973	946	957
23	751	734	742	769	737	754	924	901	912	1000	975	988
24	747	731	740	782	542	699	927	901	912	1000	978	995
25	744	722	733	736	535	591	968	929	947	978	917	949
26	739	715	729	776	556	684	956	927	937	917	845	880
27	742	719	730	829	726	771	951	934	943	845	802	818
28	737	714	726	733	707	716	951	940	946	802	787	794
29	731	712	721	730	705	716	948	913	932	789	773	779
30	723	675	698	751	729	738	916	835	877	796	776	784
31	710	663	693	---	---	---	835	785	801	807	796	803
MONTH:	---	---	---	901	535	751	968	700	814	1000	773	856

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	817	807	812	864	834	847	---	---	---	---	---	---
2	848	817	833	879	851	862	---	---	---	---	---	---
3	856	845	850	873	831	848	1110	---	---	---	---	---
4	851	841	846	851	818	829	---	---	---	---	---	---
5	843	826	835	864	790	820	1080	---	---	---	---	---
6	829	824	826	824	780	800	---	---	---	---	---	---
7	823	811	817	867	809	828	---	---	---	---	---	---
8	812	806	811	903	845	866	1040	---	---	---	---	---
9	813	808	811	926	853	886	1070	967	1010	---	---	---
10	813	792	805	922	848	877	1130	969	1030	---	---	---
11	792	775	784	950	836	872	1120	965	1020	---	---	---
12	805	785	797	881	797	835	1120	1040	1080	---	---	---
13	828	793	811	879	803	839	1040	998	1020	---	---	---
14	797	785	795	954	782	832	1130	1010	1070	---	---	---
15	808	782	799	938	830	884	1130	1050	1080	---	---	---
16	814	789	800	942	788	863	1110	1050	1080	---	---	---
17	789	774	780	917	825	876	1120	1040	1080	---	---	---
18	807	784	798	927	845	885	1110	982	1030	---	---	---
19	840	807	825	980	878	903	1030	887	974	---	---	---
20	842	828	835	1030	888	966	---	---	---	---	---	---
21	851	831	842	---	---	---	---	---	---	---	---	---
22	862	839	851	---	---	---	---	---	---	---	---	---
23	897	862	881	---	---	---	---	---	---	---	---	---
24	925	894	907	1070	---	---	---	---	---	---	---	---
25	904	839	869	1060	938	1000	---	---	---	---	---	---
26	849	828	839	1080	---	---	---	---	---	---	---	---
27	860	834	848	1060	---	---	---	---	---	---	---	---
28	861	821	838	---	---	---	---	---	---	---	---	---
29	834	822	827	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH:	925	774	827	---	---	---	---	---	---	---	---	---

STATION NUMBER: 09306700 NAME: WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

SPECIFIC CONDUCTANCE (UMHOS AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	778	---	750
6	---	---	---	---	---	---	---	---	---	790	740	761
7	---	---	---	---	---	---	---	---	---	902	752	777
8	---	---	---	520	485	498	---	---	---	828	748	770
9	---	---	---	525	449	512	---	---	---	752	714	727
10	---	---	---	534	507	519	---	---	---	726	708	716
11	---	---	---	539	516	527	---	---	---	720	692	708
12	---	---	---	559	529	547	---	---	---	718	---	---
13	---	---	---	580	554	567	---	---	---	---	---	---
14	---	---	---	594	567	581	703	637	665	---	---	---
15	---	---	---	599	568	583	754	665	703	704	660	685
16	---	---	---	604	580	589	1160	711	775	716	676	701
17	---	---	---	624	590	604	1310	774	916	728	684	709
18	---	---	---	647	598	623	---	---	---	730	686	709
19	---	---	---	660	615	638	1670	---	---	966	688	709
20	---	---	---	678	608	648	1510	---	1020	702	662	681
21	---	---	---	---	---	---	1110	916	1010	824	646	669
22	---	---	---	---	---	---	1010	---	---	864	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH:	---	---	---	---	---	---	---	---	---	---	---	---

VTN ENVIRONMENTAL SCIENCES DIVISION PROCESS DATE: 03/04/85
09306700 - WHITE RIVER BLW ASPHALT WASH NR WATSON, UT

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	TURBI-DITY (NTU)	SUS-PENDED SOLIDS, RESIDUE @ 105 C (MG/L)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25
02/28/84	1315	E380	0.0	10.0	7.2	7.8	--	--	80	820	860

DATE	TIME	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS. CALC. SUM (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
02/28/84	1315	545	552	331	128	203	--	--	2.4	--	<0.01

DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO
02/28/84	1315	0.10	<0.01	0.35	<0.01	<0.01	16	78	33	63	1.5

DATE	TIME	PERCENT SODIUM	POTAE-SIUM, DISS., (MG/L)	SUL-FATE, DISS., (MG/L)	CHLOR-IDE, DISS., (MG/L)	FLUOR-IDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUM-INUM DISS (UG/L)	ARSENIC DISS., (UG/L)
02/28/84	1315	29	2.4	224	15	0.3	--	--	90	--	--

SUSPENDED SEDIMENT AND FIELD WATER QUALITY DATA

WHITE RIVER STATION 09306700

DATE	TIME	STREAM FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SUSP SEDI-MENT DIS-CHARGE (T/DAY)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH, FIELD (UNITS)
02/29/84	1330	340	159	146	830	0.0	10.1	7.3
04/17/84	1300	826	2560	5709	1060	12.0	8.8	--
06/06/84	1355	4820	4080	53097	480	13.0	9.2	8.2
09/05/84	1330	783	263	556	730	17.2	8.3	8.6

Birds Nest Zone

- Mean Daily Water Levels: Wells G-5, G-11, P-1, P-2 Lower, and P-3
- Instantaneous Static Water Levels: Wells G-5, G-8A, G-10, G-11, G-14, G-15, G-21, P-1, P-2 Lower, and P-3
- Laboratory Water Quality Data: Wells G-5 and G-11
- Field Water Quality Data: Wells G-5, G-8A, G-11, G-14, and P-2 Lower

STATION NUMBER: 395603109120801 NAME: G-5

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462.17	---	---	---	---	---	---	---	---	---	---	---
2	462.17	---	---	---	---	---	---	---	---	---	---	---
3	462.17	---	---	---	---	---	---	---	---	---	---	---
4	462.21	---	---	---	---	---	---	---	---	---	---	---
5	462.26	---	---	---	---	---	---	---	---	---	---	---
6	462.26	---	---	---	---	---	---	---	---	---	---	---
7	462.26	---	---	---	---	---	---	---	---	---	---	---
8	462.25	---	---	---	---	---	---	---	---	---	---	---
9	462.25	---	---	---	---	---	---	---	---	---	---	---
10	462.25	---	---	---	---	---	---	---	---	---	---	---
11	462.30	---	---	---	---	---	---	---	---	---	---	---
12	462.38	---	---	---	---	---	---	---	---	---	---	---
13	462.38	---	---	---	---	---	---	---	---	---	---	---
14	462.21	---	---	---	---	---	---	---	---	---	---	---
15	462.20	---	---	---	---	---	---	---	---	---	---	---
16	462.27	---	---	---	---	---	---	---	---	---	---	---
17	462.29	---	---	---	---	---	---	---	---	---	---	---
18	462.28	---	---	---	---	---	---	---	---	---	---	---
19	462.30	---	---	---	---	---	---	---	---	---	---	---
20	462.32	---	---	---	---	---	---	---	---	---	---	---
21	462.35	---	---	---	---	---	---	---	---	---	---	---
22	462.38	---	---	---	---	---	---	---	---	---	---	---
23	462.39	---	---	---	---	---	---	---	---	---	---	---
24	462.46	---	---	---	---	---	---	---	---	---	---	---
25	462.54	---	---	---	---	---	---	---	---	---	---	---
26	462.55	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

STATION NUMBER: 395614109111401 NAME: G-11

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	469.91	470.71	---	468.11	468.81	468.86	468.49	---	467.70	467.30	467.50	---
2	469.92	470.76	---	468.27	468.83	468.85	468.49	---	467.70	467.30	467.50	---
3	469.93	470.88	---	468.28	468.82	468.85	468.49	---	467.70	467.30	467.50	---
4	470.12	470.84	---	---	468.80	---	468.49	---	467.70	467.30	467.50	---
5	470.18	470.79	---	---	468.78	---	---	---	467.70	467.30	467.50	---
6	470.13	470.80	---	---	468.77	468.68	---	---	467.70	467.30	467.50	---
7	470.10	470.75	---	---	468.77	468.68	---	468.31	---	467.30	467.50	---
8	470.14	---	---	---	468.77	468.68	---	468.31	---	467.30	467.50	---
9	470.18	---	---	---	468.77	468.68	467.30	467.50	---			
10	470.20	---	466.92	---	468.77	468.68	468.09	468.31	---	467.30	467.50	---
11	470.16	470.72	467.04	---	468.75	468.68	468.09	468.31	---	467.30	---	---
12	470.19	470.72	467.06	468.10	468.73	468.68	468.09	468.31	---	467.30	---	467.84
13	470.20	470.72	467.05	468.10	468.72	468.68	468.09	468.31	---	467.30	---	467.85
14	470.20	470.75	467.05	468.10	468.74	468.68	468.09	468.31	467.34	467.30	---	467.90
15	470.19	470.92	467.05	468.15	468.74	468.68	468.09	468.31	467.34	467.32	---	467.91
16	470.19	470.95	467.16	468.19	468.76	468.62	468.09	468.31	467.34	467.45	---	467.91
17	470.20	470.95	467.22	468.19	468.77	468.58	468.10	468.31	467.34	467.44	---	467.99
18	470.19	470.95	467.32	468.25	468.78	468.56	468.12	468.31	467.34	467.44	---	468.07
19	470.25	470.85	467.33	468.30	468.79	468.53	468.12	468.31	467.34	467.44	---	468.09
20	470.27	470.50	467.33	468.42	468.85	468.52	468.12	468.31	467.34	467.44	---	468.09
21	470.39	470.37	467.33	468.46	468.92	468.51	468.13	468.31	467.34	467.44	---	467.87
22	470.48	470.71	467.33	468.46	468.92	468.51	468.17	468.31	467.34	467.44	---	467.66
23	470.47	470.91	467.36	---	468.89	468.51	468.19	468.31	467.34	467.45	---	467.67
24	470.58	471.02	467.61	468.47	468.87	468.50	468.19	468.31	467.34	467.48	---	467.67
25	470.83	470.78	467.69	468.52	468.87	468.50	468.19	468.31	467.34	467.50	---	---
26	470.82	470.97	467.69	468.55	468.87	468.50	468.19	468.31	467.32	467.50	---	---
27	470.73	471.22	467.70	468.60	468.86	468.50	468.20	468.31	467.30	467.50	---	---
28	470.69	---	467.73	468.67	468.85	468.50	---	468.31	467.30	467.50	---	---
29	470.74	---	467.92	468.71	468.86	468.49	---	468.22	467.30	467.50	---	---
30	470.74	---	467.99	468.77	---	468.49	---	467.78	467.30	467.50	---	---
31	470.70	---	467.99	468.81	---	468.49	---	467.76	---	467.50	---	---

STATION NUMBER: 395733109095401 NAME: P-1

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281.39	---	282.31	282.52	282.19	282.50	281.37	281.48	281.02	281.07	281.58	282.07
2	281.40	282.11	282.22	282.55	282.32	282.49	281.55	281.43	281.02	281.04	281.67	282.24
3	281.46	282.18	282.15	282.46	282.31	282.47	281.78	281.47	280.83	281.07	281.70	282.30
4	281.59	282.08	282.09	282.37	282.37	282.52	281.72	281.43	280.79	281.12	281.66	282.27
5	281.59	282.03	282.47	282.25	282.47	282.56	281.50	281.36	280.78	281.09	281.68	282.22
6	281.58	282.09	282.51	282.18	282.41	282.45	281.36	281.51	280.85	281.02	281.72	281.92
7	281.53	281.92	282.46	282.18	282.34	282.48	281.54	281.67	280.91	281.05	281.79	282.06
8	281.57	281.99	282.43	282.12	282.32	282.52	281.52	281.83	281.02	281.10	281.78	282.28
9	281.56	282.32	282.34	282.25	282.29	282.46	281.51	281.53	281.04	281.14	281.76	282.24
10	281.58	282.24	282.35	282.28	282.07	282.45	281.54	281.35	280.83	281.25	281.78	282.14
11	281.67	282.03	282.47	281.97	282.24	282.30	281.56	281.45	280.91	281.26	281.80	282.16
12	281.71	282.04	282.29	282.05	282.37	282.30	281.67	281.58	280.94	281.19	281.87	282.34
13	281.41	281.96	282.35	281.94	282.33	282.40	281.78	281.62	280.92	281.23	281.87	282.47
14	281.35	282.18	282.28	281.89	282.14	282.28	281.89	281.42	280.97	281.34	281.92	282.48
15	281.63	282.44	282.24	282.15	282.52	282.39	281.79	281.26	281.01	281.40	281.95	282.42
16	281.75	282.24	282.45	282.11	282.41	282.39	281.63	281.31	281.02	281.36	281.98	282.47
17	281.69	282.03	282.44	281.98	282.23	282.23	281.43	281.42	281.03	281.29	281.97	282.53
18	281.64	281.95	282.44	282.22	282.50	282.32	281.38	281.41	280.99	281.32	281.94	282.57
19	281.78	282.10	282.17	282.23	282.65	282.41	281.23	281.38	280.98	281.38	281.93	282.50
20	281.76	281.83	282.03	282.31	282.71	282.33	281.38	281.18	280.95	281.37	281.96	282.31
21	281.84	281.78	282.18	282.21	282.50	282.00	281.78	281.05	280.93	281.32	282.03	282.13
22	281.84	282.14	282.22	282.06	282.32	282.03	281.81	281.26	281.01	281.42	282.08	282.22
23	281.71	282.32	282.39	282.12	282.47	282.16	281.59	281.30	281.14	281.61	282.02	282.21
24	281.89	282.38	282.66	282.23	282.42	282.01	281.33	281.08	281.14	281.64	281.98	282.40
25	282.10	281.97	282.48	282.22	282.28	281.90	281.17	281.13	281.10	281.59	282.00	282.74
26	281.97	282.28	282.20	282.18	282.62	281.61	281.28	281.15	281.04	281.56	282.11	282.61
27	---	282.49	282.01	282.32	282.76	281.79	281.60	281.20	281.03	281.53	282.11	282.58
28	---	282.39	282.42	282.31	282.65	281.96	281.61	281.33	281.06	281.53	282.10	282.65
29	---	282.19	282.62	282.25	282.56	281.71	281.59	281.24	281.00	281.61	282.17	282.70
30	---	282.38	282.55	282.35	---	281.62	281.62	281.10	281.04	281.63	282.14	282.55
31	---	---	282.46	282.32	---	281.66	---	280.97	---	281.56	281.95	---
MEAN	281.65	282.14	282.34	282.21	282.41	282.22	281.55	281.36	280.98	281.33	281.90	282.36

STATION NUMBER: 395617109134402 NAME: P-2 LOWER

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159.41	159.69	159.71	---	---	---	---	---	158.44	158.44	158.39	158.20
2	159.40	159.80	159.64	---	---	160.14	---	---	158.43	158.39	158.43	158.28
3	159.47	159.86	159.57	---	---	160.08	---	---	158.25	158.41	158.46	158.32
4	159.56	159.75	159.49	160.34	---	160.10	---	---	158.22	158.41	158.41	158.30
5	159.57	159.68	159.83	160.28	---	---	---	158.40	158.21	158.39	158.42	158.26
6	159.58	159.71	159.93	---	---	---	---	158.52	158.22	158.31	158.40	157.93
7	159.55	159.56	159.92	---	---	---	---	158.85	158.23	158.30	158.36	158.10
8	159.57	159.55	159.91	---	---	---	---	158.87	158.33	158.32	158.27	158.07
9	159.55	159.90	159.82	---	160.13	---	---	158.63	158.38	158.33	---	157.96
10	159.56	159.86	159.81	160.31	159.89	---	---	158.44	158.25	158.42	---	158.03
11	159.64	159.65	159.94	---	159.96	---	---	158.50	158.30	158.43	---	158.18
12	159.70	159.61	159.79	---	160.05	---	---	158.60	158.30	158.34	---	158.19
13	159.40	159.51	159.87	---	160.03	---	---	158.65	158.28	158.39	---	158.19
14	159.29	159.69	159.79	---	159.78	---	---	158.50	158.31	158.47	---	158.17
15	159.50	159.93	159.74	---	160.13	---	---	158.37	158.42	158.51	---	158.19
16	159.59	159.80	159.94	---	160.06	---	---	158.42	158.43	158.48	---	158.19
17	159.56	159.59	159.95	---	159.84	---	---	158.56	158.44	158.36	---	158.19
18	159.51	159.47	159.99	---	160.08	---	---	158.58	158.40	158.35	---	158.19
19	159.62	159.58	159.78	---	---	---	---	158.59	158.40	158.38	---	158.00
20	159.62	159.30	159.57	160.29	---	---	---	158.44	158.38	158.38	---	157.94
21	159.70	159.22	159.68	160.24	---	---	---	158.29	158.36	158.32	---	157.94
22	159.73	159.48	159.72	---	160.01	---	---	158.50	158.40	158.38	---	157.90
23	159.59	159.63	159.85	---	160.11	---	---	158.54	158.51	158.53	158.21	158.12
24	159.77	159.73	160.15	---	160.08	---	---	158.32	158.53	158.56	158.20	---
25	159.99	159.38	160.05	---	159.93	---	---	158.39	158.52	158.53	158.20	---
26	159.94	159.63	159.83	---	---	---	---	158.40	158.46	158.50	158.24	---
27	159.79	159.84	159.61	160.25	---	---	---	158.52	158.45	158.47	158.24	---
28	159.76	159.78	159.99	160.27	---	---	---	158.69	158.47	158.45	158.22	---
29	159.83	159.65	160.18	160.22	---	---	---	158.61	158.39	158.49	158.29	---
30	159.76	159.82	160.18	160.30	---	---	---	158.47	158.42	158.48	158.28	---
31	159.70	---	160.16	160.30	---	---	---	158.38	---	158.42	158.20	---
EAN	159.62	159.65	159.85	---	---	---	---	---	158.37	158.42	---	---

STATION NUMBER: 395453109111001 NAME: P-3

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	453.46	452.34	444.88	437.29	442.15	441.45	451.86	452.19
2	---	---	---	---	453.58	452.67	443.60	438.34	442.44	441.94	452.22	452.39
3	---	455.01	---	---	453.74	452.78	---	437.65	442.10	442.32	452.76	452.56
4	---	454.04	---	453.78	453.74	452.92	---	434.74	441.15	442.48	453.00	452.56
5	454.51	453.51	---	454.39	453.91	453.07	---	431.68	437.39	442.53	453.05	452.63
6	455.28	454.21	---	454.11	453.45	452.66	441.36	430.92	432.57	443.07	453.43	452.44
7	455.28	453.44	---	454.00	453.40	452.70	441.67	431.60	430.35	443.90	453.43	452.64
8	455.94	453.31	---	454.02	453.50	453.12	441.52	430.35	428.74	444.23	453.48	453.23
9	455.78	453.40	---	454.62	453.67	453.23	440.07	431.24	428.35	444.12	453.75	453.05
10	455.14	452.61	---	454.69	---	453.21	434.72	432.06	429.24	444.04	453.70	452.71
11	455.40	451.85	---	453.35	---	452.74	439.43	434.77	430.08	444.68	453.89	452.48
12	454.96	452.10	---	453.23	---	452.71	439.89	436.63	429.26	445.32	453.78	452.48
13	454.40	452.15	---	453.25	453.03	453.10	440.56	437.81	428.47	446.18	453.68	452.65
14	454.61	452.99	---	453.00	---	452.60	442.26	438.45	427.69	447.02	453.97	453.75
15	455.05	453.28	---	453.52	452.01	452.48	442.76	438.89	426.93	447.99	454.26	454.20
16	454.91	---	---	453.37	451.72	452.48	443.64	439.41	427.20	448.34	454.46	454.76
17	455.11	452.54	---	---	450.94	452.45	443.91	439.76	428.95	448.43	454.09	455.08
18	454.98	452.22	---	453.67	451.72	452.47	443.73	439.32	431.41	448.58	454.22	455.61
19	454.48	452.63	---	453.89	452.53	453.32	443.23	439.63	433.16	448.67	453.79	455.75
20	456.03	451.45	---	453.95	---	453.40	442.85	440.16	434.18	448.89	452.94	455.21
21	456.26	449.93	---	453.59	---	452.44	442.70	440.68	435.38	449.17	453.02	454.50
22	455.30	---	---	453.00	---	452.25	442.76	441.07	436.27	449.27	453.46	454.30
23	454.62	---	---	453.18	452.86	452.54	442.80	441.00	437.45	449.54	453.40	453.44
24	455.40	450.68	---	453.64	452.85	451.19	442.42	440.51	438.66	450.04	452.63	452.52
25	455.57	449.31	---	453.62	452.46	450.42	441.91	440.82	439.36	450.10	452.84	453.21
26	455.20	448.80	---	453.44	453.53	449.67	440.66	439.80	439.69	450.16	453.06	453.55
27	454.61	450.19	---	454.17	453.62	449.20	438.45	439.49	439.57	450.48	452.76	454.09
28	454.52	450.18	---	---	452.78	448.80	436.01	440.92	439.65	450.65	452.83	454.55
29	---	---	---	---	452.28	447.24	435.14	441.68	440.21	451.14	453.39	455.12
30	---	---	---	453.77	---	446.88	435.95	441.71	440.52	451.54	453.26	455.11
31	---	---	---	453.95	---	447.09	---	441.95	---	451.73	452.54	---
MEAN						451.75		437.75	434.62	447.03	453.32	453.62

STATIC WATER LEVELS
395603109120801 - G-5

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/10/83	1115	600	5292.00	462.25	4829.75
11/09/83	0900	600	5292.00	462.55	4829.45
11/29/83	0925	600	5292.00	462.25	4829.75
09/27/84	1300	600	5292.00	466.70	4825.30

STATIC WATER LEVELS
395707109093102 - G-8A

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/25/83	1200	100	5095.00	37.75	5057.25
01/23/84	0950	100	5095.00	39.10	5055.90
04/12/84	1059	100	5095.00	35.55	5059.45
07/31/84	1055	100	5095.00	37.23	5057.77

STATIC WATER LEVELS
395635109101501 - G-10

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/25/83	1145	400	5364.00	308.95	5055.05
01/19/84	1245	400	5364.00	307.30	5056.70
04/12/84	1050	400	5364.00	291.85	5072.15
07/31/84	1000	400	5364.00	297.60	5066.40

STATIC WATER LEVELS
395614109111401 - G-11

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/10/83	1330	650	5375.00	470.18	4904.82
11/08/83	1100	650	5375.00	470.70	4904.30
11/10/83	--	650	5375.00	470.71	4904.29
11/28/83	1100	650	5375.00	471.50	4903.50
12/08/83	1230	650	5375.00	468.00	4907.00
12/09/83	--	650	5375.00	466.90	4908.10
01/03/84	0826	650	5375.00	468.28	4906.72
01/11/84	1235	650	5375.00	468.10	4906.90
01/24/84	1018	650	5375.00	468.45	4906.55
02/02/84	1000	650	5375.00	468.84	4906.16
03/05/84	0933	650	5375.00	468.68	4906.32
04/09/84	1040	650	5375.00	468.08	4906.92
05/07/84	1250	650	5375.00	468.31	4906.69
06/14/84	1030	650	5375.00	467.35	4907.65
07/16/84	1135	650	5375.00	467.44	4907.56
08/10/84	0720	650	5375.00	467.68	4907.32
09/12/84	1340	650	5375.00	467.84	4907.16

STATIC WATER LEVELS
395510109094901 - G-14

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/26/83	0925	90	5172.00	3.45	5168.55
01/23/84	1035	90	5172.00	33.78	5138.22
04/12/84	1125	90	5172.00	32.90	5139.10
08/06/84	0815	90	5172.00	36.90	5135.10

395500109124401 - G-15

GROUND WATER LEVELS

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/25/83	1045	627	5343.00	512.50	4830.50
01/19/84	1200	627	5343.00	512.60	4830.40
04/12/84	0950	627	5343.00	511.75	4831.25
07/31/84	0900	627	5343.00	510.85	4832.15

STATIC WATER LEVELS
395530109134901 - G-21

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/25/83	1000	612	5262.00	432.70	4829.30
01/19/84	1100	612	5262.00	432.91	4829.09
04/12/84	0845	612	5262.00	432.00	4830.00
07/31/84	0834	612	5262.00	431.25	4830.75

STATIC WATER LEVELS
395733109095401 - P-1

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/04/83	1229	480	5284.00	281.65	5002.35
11/01/83	1110	480	5284.00	282.06	5001.94
11/29/83	1100	480	5284.00	282.15	5001.85
01/04/84	0936	480	5284.00	282.39	5001.61
02/02/84	1040	480	5284.00	282.38	5001.62
03/05/84	1055	480	5284.00	282.67	5001.33
04/05/84	1215	480	5284.00	281.61	5002.39
05/02/84	1245	480	5284.00	281.43	5002.57
06/11/84	1340	480	5284.00	280.99	5003.01
07/06/84	1130	480	5284.00	281.07	5002.93
08/02/84	1245	480	5284.00	281.68	5002.32
09/06/84	1125	480	5284.00	282.03	5001.97

STATIC WATER LEVELS
395617109134402 - P-2 LOWER

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/03/83	1425	580	4990.50	159.45	4831.05
11/02/83	1120	580	4990.50	159.81	4830.69
01/03/84	1205	580	4990.50	160.34	4830.16
02/01/84	1020	580	4990.50	160.16	4830.34
03/06/84	1005	580	4990.50	160.20	4830.30
04/03/84	1150	580	4990.50	159.48	4831.02
05/04/84	1100	580	4990.50	158.55	4831.95
06/11/84	0950	580	4990.50	158.45	4832.05
07/05/84	0925	580	4990.50	158.45	4832.05
08/02/84	1120	580	4990.50	158.47	4832.03
09/26/84	0930	580	4990.50	158.32	4832.18

STATIC WATER LEVELS
395453109111001 - P-3

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/04/83	1150	540	5486.00	454.54	5031.46
11/02/83	1150	540	5486.00	454.75	5031.25
11/29/83	1215	540	5486.00	450.32	5035.68
01/03/84	1405	540	5486.00	453.11	5032.89
02/01/84	1120	540	5486.00	453.52	5032.48
03/06/84	1110	540	5486.00	452.62	5033.38
04/05/84	0955	540	5486.00	440.00	5046.00
05/02/84	1215	540	5486.00	438.35	5047.65
06/12/84	1125	540	5486.00	431.30	5054.70
07/06/84	1055	540	5486.00	443.54	5042.46
08/06/84	1315	540	5486.00	453.51	5032.49
09/06/84	1050	540	5486.00	452.45	5033.55

LABORATORY WATER QUALTIY
FOR BIRD'S NEST ZONE WELLS

STATION NAME	DATE	TIME	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)
G-11	12/08/83	1230	18.0	7.4	7.8	80	5900	5630	4730	4591
	09/27/84	1100	--	--	7.9	5	--	5380	4760	4865
G-14	12/07/83	1230	13.0	7.6	7.4	30	3300	3260	2390	2387
G-5	09/27/84	0900	--	--	9.0	5	--	3510	2370	2364
G-8A	12/06/83	1305	13.0	7.3	7.5	70	4060	4190	3570	3545
P-2 LOWER	09/26/84	0930	13.0	9.3	9.1	15	2374	2130	1520	1574

STATION NAME	DATE	TIME	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
G-11	12/08/83	1230	808	207	601	190	7	11	2	2.8
	09/27/84	1100	862	422	460	73	3	11	<2	2.2
G-14	12/07/83	1230	487	0	676	110	4	24	2	1.5
G-5	09/27/84	0900	36	0	645	80	18	17	<2	1.0
G-8A	12/06/83	1305	1400	710	663	43	<1	15	3	0.14
P-2 LOWER	09/26/84	0930	151	0	722	51	18	5.0	<2	0.77

LABORATORY WATER QUALTIY
FOR BIRD'S NEST ZONE WELLS

STATION NAME	DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)
G-11	12/08/83	1230	2.9	<0.01	<0.10	0.04	0.10	26	60	160
	09/27/84	1100	3.0	<0.01	<0.02	0.05	<0.01	17	68	173
G-14	12/07/83	1230	1.8	<0.01	<0.10	0.11	0.32	34	35	97
G-5	09/27/84	0900	1.4	<0.01	<0.02	0.12	<0.01	2.8	6.0	5.0
G-8A	12/06/83	1305	0.60	<0.01	0.14	0.03	0.02	18	220	200
P-2 LOWER	09/26/84	0930	0.90	<0.01	<0.02	0.06	<0.01	17	21	24

STATION NAME	DATE	TIME	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DISS., (MG/L)	SUL-FATE, DISS., (MG/L)	CHLOR-IDE, DISS., (MG/L)	FLUOR-IDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)
G-11	12/08/83	1230	1200	18	76	3.5	2700	78	1.0	<0.010
	09/27/84	1100	1260	18	76	4.7	2960	107	1.1	0.010
G-14	12/07/83	1230	620	12	73	2.3	1100	89	0.9	<0.010
G-5	09/27/84	0900	835	61	98	2.8	995	127	1.2	0.035
G-8A	12/06/83	1305	650	7.6	51	5.1	2000	53	1.3	<0.010
P-2 LOWER	09/26/84	0930	524	19	88	1.5	470	78	1.3	0.014

LABORATORY WATER QUALTIY
FOR BIRD'S NEST ZONE WELLS

STATION NAME	DATE	TIME	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUM-INUM DISS (UG/L)	ARSENIC DISS., (UG/L)	BARIUM, DISS., (UG/L)	BERYL-LIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHRO-MIUM, DISS., (UG/L)
G-11	12/08/83	1230	110.0	3700	<10	1	<100	<10	<1.0	10
	09/27/84	1100	1.6	3570	17	<1	3	<5	<0.1	<1
G-14	12/07/83	1230	79.0	3700	10	4	<100	<10	<1.0	<10
G-5	09/27/84	0900	2.6	2040	17	4	70	<5	<0.1	1
G-8A	12/06/83	1305	<0.5	2000	50	5	<100	<10	2.0	<10
P-2 LOWER	09/26/84	0930	3.4	1360	17	16	15	<5	<0.1	<1

STATION NAME	DATE	TIME	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MAN-GANESE, DISS., (UG/L)	MERCURY DISS (UG/L)	MOLYB-DENUM, DISS., (UG/L)	NICKEL, DISS., (UG/L)	SELE-NIUM DISS (UG/L)
G-11	12/08/83	1230	<1	80	3	20	0.2	<1	<1	<1
	09/27/84	1100	4	140	<1	640	0.4	4	<1	<1
G-14	12/07/83	1230	<1	70	<1	30	0.5	<1	<1	<1
G-5	09/27/84	0900	2	70	2	20	<0.1	77	<1	<1
G-8A	12/06/83	1305	7	5400	2	1100	<0.1	53	9	<1
P-2 LOWER	09/26/84	0930	3	420	1	250	0.3	31	<1	<1

STATION NAME	DATE	TIME	SILVER, DISS., (UG/L)	STRON-TIUM, DISS., (UG/L)	VANA-DIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS. RADON METHOD (PCI/L)
G-11	12/08/83	1230	1.0	11000	1	30	<82	<56	<48	--
	09/27/84	1100	0.3	13700	<1	7	<2.0	<10	<5	--
G-14	12/07/83	1230	<1.0	12000	2	70	--	<31	<27	--
G-5	09/27/84	0900	<0.2	1110	<1	<5	<2.0	<10	<5	--
G-8A	12/06/83	1305	<1.0	6700	3	120	--	<44	<38	--
P-2 LOWER	09/26/84	0930	<0.2	2600	2	<5	<2.0	72	<5	--

395603109120801 - G-5

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	WATER LEVEL (FEET BELOW LSD)	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
10/10/83	1115	462.25	570.0	2302	16.5	9.2
11/09/83	0900	462.55	--	2714	16.0	7.8
09/27/84	1300	466.70	--	5550	16.5	8.0

FIELD WATER QUALTIY DATA
395614109111401 - G-11

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
10/10/83	1330	580.0	4950	17.0	9.5
11/08/83	1100	520.0	5474	17.0	7.5
12/06/83	1230	--	5900	18.0	7.4
01/03/84	0826	580.0	5700	16.5	8.0
03/05/84	0940	580.0	4186	13.5	9.1
05/07/84	1250	500.0	4200	16.0	9.1
06/14/84	1030	485.0	4641	17.5	9.5
07/16/84	1135	482.0	4380	17.0	9.1
08/10/84	0720	510.0	4182	15.5	9.6
09/12/84	1340	--	4280	17.0	9.2

395617109134402 - P-2 LOWER

WATER QUALITY DATA OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	WATER LEVEL (FEET BELOW LSD)	DEPTH OF SAMPLE (FT FM SURFACE)	SPECIFIC CONDUCTANCE FIELD (UMHOS)	WATER TEMPERATURE (DEG C)	PH, FIELD (UNITS)
09/26/84	0930	158.32	480.0	2374	13.0	9.3

Uinta Formation

- Mean Daily Water Levels: Well P-2 Upper
- Instantaneous Static Water Levels: Well P-2 Upper
- Laboratory Water Quality Data: Well P-2 Upper
- Field Water Quality Data: Well P-2 Upper

STATION NUMBER: 395617109134401 NAME: P-2 UPPER

WATER LEVEL (FEET BELOW LAND SURFACE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95.04	94.85	---	95.29	94.94	94.82	---	94.33	94.20	94.05	93.85	93.74
2	95.02	94.90	---	95.35	94.99	94.79	---	94.30	94.20	94.01	93.86	93.84
3	95.05	94.95	---	95.27	94.97	94.75	---	94.33	94.07	94.02	93.87	93.86
4	95.14	94.86	---	95.26	95.01	94.78	94.63	94.28	94.03	94.03	93.83	93.85
5	95.15	94.80	---	95.19	95.04	94.88	94.51	94.23	93.98	93.98	93.83	93.80
6	95.15	94.84	---	95.16	94.99	94.84	94.36	94.32	94.00	93.91	93.83	93.56
7	95.12	94.68	---	95.13	94.94	94.85	94.47	94.60	94.01	93.88	93.86	93.63
8	95.15	94.71	---	95.05	94.93	94.88	94.46	94.62	94.08	93.90	93.84	93.74
9	95.13	94.93	---	95.13	94.89	94.90	94.43	94.43	94.10	93.90	93.80	93.70
10	95.12	94.87	---	95.15	94.65	94.90	94.45	94.28	93.97	93.97	93.79	93.58
11	95.19	94.73	---	94.94	94.72	94.72	94.47	94.32	94.05	93.96	93.79	93.56
12	95.23	94.72	---	94.96	94.80	94.71	94.56	94.40	94.05	93.90	93.81	93.67
13	95.00	94.63	95.40	94.87	94.74	94.75	94.65	94.45	94.03	93.92	93.80	93.74
14	94.90	94.79	95.32	94.80	94.55	94.66	94.77	94.33	94.05	94.00	93.81	93.77
15	95.08	94.94	95.21	94.95	94.82	94.72	94.72	94.22	94.05	94.03	93.81	93.71
16	95.15	94.82	95.33	94.92	94.71	94.71	94.62	94.25	94.10	93.99	93.83	93.76
17	95.11	94.68	95.30	94.80	94.57	94.63	94.46	94.34	94.11	93.90	93.82	93.84
18	95.05	94.58	95.29	95.01	94.75	94.70	94.39	94.37	94.08	93.90	93.79	93.87
19	95.17	94.67	95.06	95.02	94.90	94.82	94.25	94.37	94.07	93.91	93.77	93.81
20	95.16	94.43	94.94	95.10	94.99	94.78	94.26	94.25	94.05	93.90	93.77	93.65
21	95.22	94.32	95.02	95.01	94.85	94.60	94.54	94.14	94.02	93.88	93.80	93.49
22	95.24	94.55	94.98	94.90	94.70	94.61	94.59	94.27	94.05	93.88	93.85	93.53
23	95.14	94.65	95.05	94.91	94.77	94.68	94.48	94.30	94.13	93.95	93.80	93.47
24	95.22	94.48	95.27	94.97	94.74	94.62	94.27	94.16	94.13	93.98	93.78	93.58
25	95.44	94.73	95.14	94.96	94.62	94.56	94.11	94.20	94.13	93.95	93.78	93.84
26	95.38	---	94.94	94.92	94.83	94.35	94.15	94.21	94.09	93.92	93.84	---
27	95.23	---	94.75	95.02	94.98	---	94.33	94.29	94.08	93.88	93.83	---
28	95.14	---	95.04	95.01	94.92	---	94.38	94.41	94.08	93.87	93.82	---
29	94.99	---	95.22	94.97	94.86	---	94.39	94.35	94.02	93.90	93.85	---
30	94.93	---	95.22	95.04	---	---	94.43	94.24	94.03	93.90	93.84	---
31	94.86	---	95.16	95.03	---	---	---	94.18	---	93.85	93.69	---
MEAN	95.13			95.03	94.83	94.73		94.32	94.07	93.94	93.81	

STATIC WATER LEVELS
395617109134401 - P-2 UPPER

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/03/83	1420	378	4991.00	95.10	4895.90
11/02/83	1135	378	4991.00	94.95	4896.05
12/01/83	0935	378	4991.00	95.08	4895.92
12/12/83	1100	378	4991.00	95.41	4895.59
01/03/84	--	378	4991.00	95.26	4895.74
02/01/84	1030	378	4991.00	94.92	4896.08
03/06/84	1008	378	4991.00	94.84	4896.16
04/03/84	1125	378	4991.00	94.69	4896.31
05/04/84	1110	378	4991.00	94.29	4896.71
06/15/84	1010	378	4991.00	94.10	4896.90
07/05/84	0930	378	4991.00	94.06	4896.94
08/02/84	1110	378	4991.00	93.86	4897.14
09/26/84	1115	378	4991.00	95.97	4895.03

LABORATORY WATER QUALTIY DATA
FOR WELL P-2 UPPER

DATE	TIME	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)
09/26/84	1115	14.0	8.2	8.5	10	4672	4200	3610	3756

DATE	TIME	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
09/26/84	1115	491	0	546	26	1	5.0	3	2.2

DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS N)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)
09/26/84	1115	2.3	<0.02	<0.02	0.04	<0.01	8.1	45	92

DATE	TIME	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DISS., (MG/L)	SUL-FATE, DISS., (MG/L)	CHLOR-IDE, DISS., (MG/L)	FLUOR-IDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)
09/26/84	1115	1030	20	82	2.5	2180	68	0.3	0.009

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUM-INUM DISS (UG/L)	ARSENIC DISS., (UG/L)	BARIUM, DISS., (UG/L)	BERYL-LIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHRO-MIUM, DISS., (UG/L)
09/26/84	1115	<0.2	430	49	<1	7	<5	<0.1	<1

DATE	TIME	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MAN-GANESE, DISS., (UG/L)	MERCURY DISS (UG/L)	MOLYB-DENUM, DISS., (UG/L)	NICKEL, DISS., (UG/L)	SELE-NIUM DISS (UG/L)
09/26/84	1115	4	970	<1	220	<0.1	8	<1	<1

DATE	TIME	SILVER, DISS., (UG/L)	STRON-TIUM, DISS., (UG/L)	VANA-DIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS., RADON METHOD (PCI/L)
09/26/84	1115	0.2	7000	2	9	43	<10	23	<0.5

DATE	TIME	URANIUM DISS., DIRECT FLUORO-METRIC (PCI/L)
09/26/84	1115	0

FIELD WATER QUALITY DATA
395617109134401 - P-2 UPPER

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
09/26/84	1115	--	4672	14.0	8.2

Southam Canyon Alluvium

- Instantaneous Static Water Levels: Wells AG-6-1 Lower, AG-7, G-2A, and G-4A
- Field Water Quality Data: Well AG-6-1 Lower

STATIC WATER LEVELS
395651109140201 - AG-6-1 LOWER

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/25/83	0935	27	4920.00	13.80	4906.20
01/19/84	1140	27	4920.00	14.30	4905.70
04/12/84	0915	27	4920.00	13.98	4906.02
08/10/84	0900	27	4920.00	13.70	4906.30

GROUND WATER LEVEL MEASUREMENTS

SITE NO. AG-7 WELL NO. 395408105121601 JOB NO.

DATE INSTALLED DATE DEVELOPED CLIENT PROJECT

DEPTH 39.0 DIAMETER LOCATION

CASING MATERIAL SCREEN TYPE SECTION TOWNSHIP RANGE

SCREENED OPEN INTERVAL(S) COMMENTS

METHOD OF DEVELOPMENT

ELEVATION OF GROUND SURFACE 5505.00 (MSL) DESCRIPTION OF MEASURING POINT

ELEVATION OF MEASURING POINT 5508.30 (MSL) STICK-UP 3.30

DATE 1983	TIME			DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/25	1105		—0—				HES	DRY
1984 1/19	—		—0—				HES	
4/12	0950		—0—				HES	Dry @ 42.30 ft
7/31	0915		—0—				DHO	Dry @ 42.30

GROUND WATER LEVEL MEASUREMENTS

PAGE 1 OF 1

SITE NO. G-2A
WELL NO. 395-607109132602
JOB NO. 1517
DATE INSTALLED
DATE DEVELOPED
CLIENT PROJECT WRSCP
DEPTH 39.60
DIAMETER
LOCATION
CASING MATERIAL
SCREEN TYPE
SECTION TOWNSHIP RANGE
SCREENED OPEN INTERVAL(S)
COMMENTS
METHOD OF DEVELOPMENT
ELEVATION OF GROUND SURFACE 5056.00 (MSL)
DESCRIPTION OF MEASURING POINT
ELEVATION OF MEASURING POINT 5059.00 (MSL)
STICK-UP 3.0

DATE 1983	TIME			DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/25	1010		—o—				HES	Dry
1984 1/23	1125		—o—				HES	Dry
4/12	0859		—o—				HES	Dry @ 39.10 ft
7/31	0845		—o—				DHO	" @ 39.10

GROUND WATER LEVEL MEASUREMENTS

SITE NO. G-4A WELL NO. 395502105124302 JOB NO. 1517

DATE INSTALLED _____ DATE DEVELOPED _____ CLIENT PROJECT WRSOP

DEPTH 20.0 DIAMETER _____ LOCATION _____

CASING MATERIAL _____ SCREEN TYPE _____ SECTION _____ TOWNSHIP _____ RANGE _____

SCREENED OPEN INTERVAL(S) _____ COMMENTS _____

METHOD OF DEVELOPMENT _____

ELEVATION OF GROUND SURFACE 5345.50 (MSL) DESCRIPTION OF MEASURING POINT _____

ELEVATION OF MEASURING POINT 5348.50 (MSL) STICK-UP 3.0

DATE 1983	TIME			DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/25	1050		—0—				HES	DRY
1984 1/23	1150		—0—				HES	
4/12	0945		—0—				HES	Dry @ 18.60 ft
7/31	0855		—0—				DHO	" @ 18.60 ft

FIELD WATER QUALITY DATA
395651109140201 - AG-6-1 LOWER

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
10/25/83	0935	--	1200	13.0	7.9
01/19/84	1140	--	1200	12.8	8.0
04/12/84	0915	19.5	1292	10.0	7.6

Plant Site Wash Retention Dam Monitoring Wells

- Instantaneous Static Water Levels: Wells
- UF-1-1, UF-1-2, UF-1-3, UF-1-4, UF-2-1, UF-2-2, UF-2-3, UF-3-1, UF-3-2, UF-4-1, UF-4-2, UF-4-3, UF-5-1, UF-5-2, UF-6-1, and UF-6-2
- Laboratory Water Quality Data: Wells UF-1-1, UF-1-2, UF-3-2, UF-4-3, and UF-5-2
- Field Water Quality Data: Wells UF-1-1, UF-1-2, UF-1-4, UF-3-2, UF-4-3, and UF-5-2

STATIC WATER LEVELS
395627109115901 - UF-1-1

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/17/83	--	308	5130.79	259.45	4871.34
11/10/83	--	308	5130.79	247.45	4883.34
12/13/83	--	308	5130.79	233.55	4897.24
01/18/84	--	308	5130.79	217.15	4913.64
02/10/84	0948	308	5130.79	209.25	4921.54
03/16/84	1054	308	5130.79	203.77	4927.02
04/24/84	1010	308	5130.79	201.25	4929.54
05/14/84	1009	308	5130.79	200.60	4930.19
06/20/84	0847	308	5130.79	199.85	4930.94
08/07/84	0755	308	5130.79	199.37	4931.42
08/15/84	0930	308	5130.79	208.75	4922.04
09/11/84	1425	308	5130.79	218.45	4912.34

STATIC WATER LEVELS
395627109115902 - UF-1-2

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/17/83	--	203	5130.79	182.85	4947.94
11/10/83	--	203	5130.79	180.15	4950.64
12/13/83	--	203	5130.79	179.60	4951.19
01/18/84	--	203	5130.79	179.75	4951.04
02/10/84	0952	203	5130.79	179.80	4950.99
03/16/84	1108	203	5130.79	179.75	4951.04
04/24/84	1027	203	5130.79	179.80	4950.99
05/14/84	1026	203	5130.79	179.85	4950.94
06/20/84	0854	203	5130.79	179.88	4950.91
08/07/84	0915	203	5130.79	180.00	4950.79
08/15/84	1130	203	5130.79	183.11	4947.68
09/11/84	1440	203	5130.79	188.95	4941.84

STATIC WATER LEVELS
395627109115903 - UF-1-3

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/17/83	--	101	5130.79	96.79	5034.00
11/10/83	--	101	5130.79	96.78	5034.01
12/13/83	--	101	5130.79	98.08	5032.71
01/18/84	--	101	5130.79	98.83	5031.96
02/10/84	0938	101	5130.79	99.35	5031.44
03/16/84	1115	101	5130.79	99.66	5031.13
04/24/84	1038	101	5130.79	100.03	5030.76
05/14/84	1043	101	5130.79	99.87	5030.92
06/20/84	0904	101	5130.79	99.93	5030.86
08/07/84	1135	101	5130.79	100.03	5030.76
09/11/84	1450	101	5130.79	100.55	5030.24

STATIC WATER LEVELS
395627109115904 - UF-1-4

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/17/83	--	33	5130.79	27.08	5103.71
11/10/83	--	33	5130.79	28.28	5102.51
12/13/83	--	33	5130.79	32.43	5098.36
01/18/84	--	33	5130.79	32.93	5097.86
02/10/84	1005	33	5130.79	34.27	5096.52
03/16/84	1120	33	5130.79	33.86	5096.93
04/24/84	1041	33	5130.79	23.31	5107.48
05/14/84	1035	33	5130.79	23.36	5107.43
06/20/84	0910	33	5130.79	23.43	5107.36
08/07/84	1110	33	5130.79	23.93	5106.86
09/11/84	1455	33	5130.79	24.43	5106.36

Top of O.S. casing 5191.62
I. " I.S. casing 5191.34

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-2-1 WELL NO. 395628105115501

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 152.21 (153) DIAMETER 2.5"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED OPEN INTERVAL(S) ____

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5188.59 (MSL)

ELEVATION OF MEASURING POINT 5191.62 (MSL)

JOB NO. ____

CLIENT PROJECT WRSOP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS Top of Sump = 147' bolow
Flow 5041.59

DESCRIPTION OF MEASURING POINT ____

STICK-UP 3.03

DATE 1983	TIME		Depth to water mp	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/26	—		— 0 —				HES	Dry
11/10	—		— 0 —				HES	Dry
12/13	—		— 0 —				HES	Dry
1984 1/18	—		— 0 —				HES	Dry
2/10	0925		— 0 —				HES	DRY
3/16	0940		— 0 —				HES	DRY
4/24	0925		* — 0 —				HES	Dry @ *155.25
5/14	0959		— 0 —					Dry @ 155.26
6/20	0833		— 0 —				HES	Dry @ 155.24
			No July Meas					
8/9	1000		— 0 —				HES	Dry @ 155.24
9/11	1345		— 0 —				DHO	Dry @ 155.24

O.S. Casing 5191.62
I.S. Tube 5191.20

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-2-2 WELL NO. 395628109115502

JOB NO. 1517

DATE INSTALLED ____ DATE DEVELOPED ____

CLIENT PROJECT URSOP

DEPTH 83.07 (84) DIAMETER 2.5"

LOCATION ____

CASING MATERIAL ____ SCREEN TYPE ____

SECTION ____ TOWNSHIP ____ RANGE ____

SCREENED OPEN INTERVAL(S) ____

COMMENTS Top of Sump = 78' below ES
ELEV = 5110.59

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5188.59 (MSL) DESCRIPTION OF MEASURING POINT ____

ELEVATION OF MEASURING POINT 5191.62 (MSL) STICK-UP 3.03

DATE 1983	TIME		Depth to Water M.P.	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/26			—o—				HES	Dry
11/20			—o—				HES	"
12/			—o—				HES	"
1/ 1984			—o—				HES	"
2/10	0925		—o—				HES	"
3/16	0945		—o—				HES	"
4/24	0928		*—o—				HES	" at *86.10
5/14	0957		—o—				HES	" @ 86.10
6/20	0835		—o—				HES	@ 86.11
				No Surf. Meas.				
8/9	1002		—o—				HES	" @ 86.11
9/11	1348		—o—				HES	" @ 86.12

O.S. casing 5191.62
tube 5191.62

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UI-2-3 WELL NO. 355628109115503 —

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 49.17 53 DIAMETER 8"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED OPEN INTERVAL(S) 11 - 53

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5188.59 (MSL) DESCRIPTION OF MEASURING POINT ____

ELEVATION OF MEASURING POINT 5191.62 (MSL) STICK-UP 3.03

JOB NO. 1517

CLIENT PROJECT USGS OP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS ____

DATE 1983	TIME		Depth to water M.P.	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/26			—0—				HES	Dry
11/10			—0—				HES	"
12/			—0—				HES	"
1984 1/			—0—				HES	"
2/10	0925		—0—				HES	"
3/16	0950		—0—				HES	"
4/24	0929		*—0—				HES	" @ *52.20
5/14	1108		—0—				DITO	" @ 52.21
6/20	0837		—0—					" @ 52.20
				No July Meas				
8/9	1005		—0—				DITO	" @ 52.20
9/11	1353		—0—				DITO	" @ 52.20

O.S. Casing = 5141.29
Tube = 5141.07

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-3-1 WELL NO. 385629109120001

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 115.39 (115.1) DIAMETER 2.5"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED/OPEN INTERVAL(S) 50-110

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5138.11 (MSL)

ELEVATION OF MEASURING POINT 5141.07 (MSL)

JOB NO. ____

CLIENT PROJECT ____

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS Top of Casing 10' Below LSD Elev = 5029.11

DESCRIPTION OF MEASURING POINT ____

STICK-UP 2.96

DATE	TIME		Depth to water m.P.	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
1983								
10/6			—o—				HES	DRY
11/10			—o—				HES	"
12/?			—o—				HES	"
1/? 1984			—o—				HES	"
2/10	1040		—o—				HES	"
3/16	1031		—o—				HES	"
4/24	0934		*—o—				HES	" @ * 118.35
5/14	1155		—o—				HES	"
6/20	~928		—o—				HES	This one should be dry. @ 118.35
				No July Meas				
8/9	1020		—o—					@ 118.35
9/11	1530		—o—					" @ 118.35

STATIC WATER LEVELS
395629109120002 - UF-3-2

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/19/83	--	45	5138.11	26.94	5111.17
11/10/83	--	45	5138.11	27.09	5111.02
12/13/83	--	45	5138.11	26.89	5111.22
01/18/84	--	45	5138.11	27.04	5111.07
02/10/84	1045	45	5138.11	26.99	5111.12
03/16/84	1033	45	5138.11	27.19	5110.92
04/24/84	0936	45	5138.11	25.52	5112.59
05/14/84	1110	45	5138.11	25.44	5112.67
06/20/84	0932	45	5138.11	25.29	5112.82
08/08/84	0830	45	5138.11	24.64	5113.47
09/11/84	1520	45	5138.11	25.34	5112.77

O.S. Casing 5154.61
Tube 5154.30

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-4-1 WELL NO. 395630109120101

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 133.67 (133) DIAMETER 2.5"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED OPEN INTERVAL(S) 73 - 138

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5151.88 (MSL)

ELEVATION OF MEASURING POINT 5154.30 (MSL)

JOB NO. 1517

CLIENT PROJECT WRSOP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS Top of Sump 127' below Elev 5024.88

DESCRIPTION OF MEASURING POINT ____

STICK-UP 2.42

DATE	TIME		Depth to water m.P.	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
1983								
10/26			-0-				HES	DRY
11/10			-0-				HES	"
12/			-0-				HES	"
1/1984			-0-				HES	"
2/10	1030		-0-				HES	"
3/16	1020		-0-				HES	"
4/24	0940		*-0-				HES	" @ 136.4
5/14	1054		-0-				DHO	" @ 136.41
6/20	0936		-0-				HES	
				No July Measurement				136.40
8/9	1010						DHO	(3) 136.40
9/11	1506		-0-				DHO	(4) 136.40

OS casing 5154.61
Tube 5154.25

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-4-2 WELL NO. 395630105120102

DATE INSTALLED 7.17 DATE DEVELOPED ____

DEPTH ~~67.5~~ (69) DIAMETER 2.5"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED OPEN INTERVAL(S) 43-63

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5151.88 (MSL) DESCRIPTION OF MEASURING POINT ____

ELEVATION OF MEASURING POINT 5154.25 (MSL) STICK-UP 2.37

JOB NO. 1517

CLIENT PROJECT USGS

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS Top of Sump 63' below LSD
Elev 5088.88

DATE 1983	TIME		Depth to water M.P.	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/26			—o—				H&S	Dry
11/10			—o—					"
12/			—o—					"
1984			—o—					"
2/10	1030		—o—					"
3/16	1022		—o—					"
4/24	0942		*—o—					" *70.68
5/14	1058		—o—				D Ho	*70.70
6/20	0938		—o—				H&S	"
				No Truly Measurement				
8/9	1012		—o—				D Ho	@ 70.20
9/11	1508		—o—				D Ho	@ 70.20

STATIC WATER LEVELS
395630109120103 - UF-4-3

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/19/83	--	33	5151.88	31.02	5120.86
11/10/83	--	33	5151.88	30.57	5121.31
12/13/83	--	33	5151.88	27.97	5123.91
01/18/84	--	33	5151.88	28.37	5123.51
02/10/84	1035	33	5151.88	24.67	5127.21
03/16/84	1025	33	5151.88	23.52	5128.36
04/24/84	0944	33	5151.88	19.17	5132.71
05/14/84	1105	33	5151.88	19.20	5132.69
06/20/84	0943	33	5151.88	18.89	5132.99
08/08/84	0945	33	5151.88	18.65	5133.23
09/11/84	1510	33	5151.88	18.65	5133.23

O.S. Casing 5202.99
Tube 5202.47

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-5-1 WELL NO. 395634109120601

DATE INSTALLED 10.9.69 DATE DEVELOPED ____

DEPTH ~~115.0~~ 197 DIAMETER 4.0"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED/OPEN INTERVAL(S) ____

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5200.53 (MSL) DESCRIPTION OF MEASURING POINT ____

ELEVATION OF MEASURING POINT 5202.47 (MSL) STICK-UP 1.94

JOB NO. 1517

CLIENT PROJECT WRSOP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS ____

DATE 1983	TIME		Depth to Water MP	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/26			-0-				HES	DRY
11/10			-0-					"
12/1			-0-					"
~~1984~~ 1/			-0-					"
2/10	0915		-0-					"
3/16	1010		-0-					"
4/24	0914		*-0-					" @ *172.18
5/14	0948		-0-					" @ 172.18
6/20	0824		-0-					" @ 172.15
				No July Meas.				"
8/9	1015		-0-					" @ 172.15
9/11	1330		-0-					" @ 172

STATIC WATER LEVELS
395634109120602 - UF-5-2

DATE	TIME	DEPTH OF WELL (FEET)	ELEVATION OF LAND SURFACE DATUM (FEET)	WATER LEVEL (FEET BELOW LSD)	ELEVATION OF STATIC WATER LEVEL (FEET)
10/26/83	--	89	5200.53	67.14	5133.39
11/10/83	--	89	5200.53	66.79	5133.74
12/13/83	--	89	5200.53	66.99	5133.54
01/18/84	--	89	5200.53	67.44	5133.09
02/10/84	0920	89	5200.53	67.52	5133.01
03/16/84	1012	89	5200.53	67.39	5133.14
04/24/84	0920	89	5200.53	62.74	5137.79
05/14/84	0950	89	5200.53	62.88	5137.65
06/20/84	0829	89	5200.53	61.77	5138.76
08/08/84	1130	89	5200.53	61.67	5138.86
09/11/84	1320	89	5200.53	61.89	5138.64

O.S. casing 5208.01
Tube 5207.85

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UF-6-1 ✓ WELL NO. 395626108115301

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 167.69 ✓ (16 ✓) DIAMETER 4.0"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED/OPEN INTERVAL(S) ____

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5205.70 ✓ (MSL)

ELEVATION OF MEASURING POINT 5207.85 ✓ (MSL)

JOB NO. 1517

CLIENT PROJECT WRSOP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS ____

DESCRIPTION OF MEASURING POINT Top of Tube

STICK-UP 2.15 ✓

DATE	TIME		Depth to Water M.P.	(72019) DEPTH TO WATER LSD	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
1983								
10/6			-0-				HES	DRY
11/10			-0-					"
12/13			-0-					"
~~1984~~ 1/1			-0-					"
2/10	1110		-0-					"
3/16	1000		-0-					"
4/24	1053		*-0-					" *@ 170.0
5/14	0950		-0-					" * @ 170.00
6/20	0950		-0-					" @ 170.50
			No July Meas.					
8/9	0950		-0-					" @ 178.00
9/11	1335		-0-					" @ 178.00

U.S. casing ~~5210.40~~
Tube 5208.01

GROUND WATER LEVEL MEASUREMENTS

PAGE ____ OF ____

SITE NO. UE-6-2 WELL NO. 395626109115302

DATE INSTALLED ____ DATE DEVELOPED ____

DEPTH 70.04' DIAMETER 8"

CASING MATERIAL ____ SCREEN TYPE ____

SCREENED OPEN INTERVAL(S) ____

METHOD OF DEVELOPMENT ____

ELEVATION OF GROUND SURFACE 5205.70 (MSL)

ELEVATION OF MEASURING POINT 5208.01 (MSL)

JOB NO. 1517

CLIENT PROJECT WRSOP

LOCATION ____

SECTION ____ TOWNSHIP ____ RANGE ____

COMMENTS ____

DESCRIPTION OF MEASURING POINT top of tube

STICK-UP 2.31

DATE 1983	TIME		Depth to Water MP	(72019) DEPTH TO WATER	ELEVATION OF (MSL) WATER LEVEL		RECORDED BY	REMARKS
10/21			—0—				MES	Capped
11/10			—0—					Dry
12/			—0—					"
1984 1/18			—0—					"
2/10	1115		—0—					"
3/16	1000		—0—					"
4/24	1055		—0—					" @ 72.30
5/14	1125		—0—					" @ 72.30
6/20	0954		—0—					Dry @ 72.35
			No July Measurement					
8/9	0933		—0—					Dry @ 72.35
9/11	1338		—0—					Dry @ 72.35

GROUND WATER QUALITY DATA
UF WELLS

STATION NAME	DATE	TIME	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)	PH, LAB (UNITS)	COLOR (PCU)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	SPECI-FIC CONDUC-TANCE LAB, UMHS@25	TOTAL DISS SOLIDS, RESIDUE @ 180 C (MG/L)	TOTAL DISS. SOLIDS, CALC. SUM (MG/L)
UF-1-1	08/07/84	0755	14.0	9.6	9.3	35	5898	4940	4050	4187
UF-1-2	08/07/84	0915	14.0	8.1	7.7	190	9375	9100	8710	9042
UF-1-4	08/07/84	1110	16.0	6.7	7.5	20	17120	16900	16600	17366
UF-3-2	08/08/84	0830	13.0	7.8	6.6	25	12020	11700	11900	11647
UF-4-3	08/08/84	0945	13.5	6.9	6.3	25	7510	6890	6950	6781
UF-5-2	08/08/84	1130	16.0	6.9	7.0	17	6246	5460	5040	5120

STATION NAME	DATE	TIME	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS, NONCARB (MG/L AS CACO3)	ALKALI-NITY, LAB (MG/L AS CACO3)	OXYGEN DEMAND, CHEM-ICAL (MG/L)	OIL AND GREASE, TOTAL RECOV. GRAVIM. (MG/L)	ORGANIC CARBON, DIS-SOLVED, (MG/L)	PHENOLS TOTAL (UG/L)	AMMONIA DISS (MG/L AS N)
UF-1-1	08/07/84	0755	223	30	193	130	4	39	19	1.7
UF-1-2	08/07/84	0915	1364	1274	90	95	2	28	32	3.0
UF-1-4	08/07/84	1110	5147	4649	498	65	1	23	41	1.1
UF-3-2	08/08/84	0830	3171	3137	34	100	1	20	11	5.2
UF-4-3	08/08/84	0945	2527	2424	103	55	1	14	<2	0.33
UF-5-2	08/08/84	1130	1349	1299	50	35	<1	13	<2	2.0

GROUND WATER QUALITY DATA
UF WELLS

STATION NAME	DATE	TIME	AMMONIA + ORG. NITRO. TOTAL (MG/L AS N)	NITRITE DISS (MG/L AS N)	NITRITE PLUS NITRATE DISS (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO DISS., (MG/L AS P)	SILICA, DISS., (MG/L AS SIO2)	CAL-CIUM, DISS., (MG/L)	MAGNE-SIUM, DISS., (MG/L)
UF-1-1	08/07/84	0755	4.3	<0.01	<0.02	0.06	0.01	0.30	20	42
UF-1-2	08/07/84	0915	3.1	<0.01	<0.02	0.07	<0.01	0.40	337	127
UF-1-4	08/07/84	1110	1.7	<0.01	10	0.01	<0.01	7.6	469	966
UF-3-2	08/08/84	0830	6.6	<0.01	0.33	0.13	0.01	1.3	431	509
UF-4-3	08/08/84	0945	0.60	<0.01	<0.02	0.01	<0.01	5.5	318	421
UF-5-2	08/08/84	1130	2.4	0.02	22	0.03	<0.01	5.9	448	56

STATION NAME	DATE	TIME	SODIUM, DISS., (MG/L)	SODIUM ADSORP-TION RATIO	PERCENT SODIUM	POTAS-SIUM, DISS., (MG/L)	SUL-FATE, DISS., (MG/L)	CHLOR-IDE, DISS., (MG/L)	FLUOR-IDE, DISS., (MG/L)	CYANIDE TOTAL (MG/L)
UF-1-1	08/07/84	0755	1260	37	92	9.7	2570	177	1.9	0.005
UF-1-2	08/07/84	0915	2280	27	78	19	5880	363	1.1	<0.001
UF-1-4	08/07/84	1110	3990	24	63	15	11000	630	1.6	<0.001
UF-3-2	08/08/84	0830	2590	20	64	17	7510	585	0.5	0.003
UF-4-3	08/08/84	0945	1230	11	51	7.8	4560	183	0.4	0.002
UF-5-2	08/08/84	1130	1060	13	63	12	3360	160	1.4	0.002

GROUND WATER QUALITY DATA (Continued...)
UF WELLS

STATION NAME	DATE	TIME	SULFIDE TOTAL (MG/L AS S)	BORON, DISS (UG/L)	ALUM-INUM DISS (UG/L)	ARSENIC DISS., (UG/L)	BARIUM, DISS., (UG/L)	BERYL-LIUM, DISS., (UG/L)	CADMIUM DISS., (UG/L)	CHRO-MIUM, DISS., (UG/L)
UF-1-1	08/07/84	0755	<0.2	580	12	<1	<100	<5	<0.1	<1
UF-1-2	08/07/84	0915	<0.2	580	9	<1	<100	<5	<0.1	<1
UF-1-4	08/07/84	1110	<0.2	1050	65	<1	<100	<5	<0.1	<1
UF-3-2	08/08/84	0830	<0.2	180	56	<1	<100	<5	<0.1	<1
UF-4-3	08/08/84	0945	<0.2	1080	21	<1	<100	<5	<0.1	<1
UF-5-2	08/08/84	1130	<0.2	100	25	<1	<100	<5	<0.1	<1

STATION NAME	DATE	TIME	COPPER DISS., (UG/L)	IRON DISS., (UG/L)	LEAD DISS., (UG/L)	MAN-GANESE, DISS., (UG/L)	MERCURY DISS (UG/L)	MOLYB-DENUM, DISS., (UG/L)	NICKEL, DISS., (UG/L)	SELE-NIUM DISS (UG/L)
UF-1-1	08/07/84	0755	<1	30	<1	30	<0.1	2	3	<1
UF-1-2	08/07/84	0915	5	13400	<1	2020	<0.1	2	<1	<1
UF-1-4	08/07/84	1110	6	18900	<1	550	<0.1	11	17	1
UF-3-2	08/08/84	0830	4	38200	<1	3170	<0.1	2	5	<1
UF-4-3	08/08/84	0945	3	214000	<1	2490	<0.1	1	<1	<1
UF-5-2	08/08/84	1130	4	10100	<1	190	<0.1	3	<1	<1

GROUND WATER QUALITY DATA (Continued...)
UF WELLS

STATION NAME	DATE	TIME	SILVER, DISS., (UG/L)	STRONTIUM, DISS., (UG/L)	VANADIUM, DISS., (UG/L)	ZINC, DISS., (UG/L)	GROSS ALPHA DISS., (PCI/L AS U-NAT)	GROSS BETA DISS., (PCI/L AS CS-137)	GROSS BETA, DISS., (PCI/L AS SR90 /Y90)	RADIUM 226, DISS. RADON METHOD (PCI/L)
UF-1-1	08/07/84	0755	<0.2	2460	1	10	<2.0	<10	<5	--
UF-1-2	08/07/84	0915	0.3	12600	1	27	8.0	<10	<5	<0.50
UF-1-4	08/07/84	1110	0.3	16700	1	58	31	<10	<5	<0.50
UF-3-2	08/08/84	0830	0.4	6600	<1	42	<2.0	<10	<5	--
UF-4-3	08/08/84	0945	<0.2	7800	<1	30	<2.0	<10	<5	--
UF-5-2	08/08/84	1130	<0.3	10600	<1	27	<2.0	55	<5	--

STATION NAME	DATE	TIME	URANIUM DISS. DIRECT FLUORO-METRIC (PCI/L)
UF-1-1	08/07/84	0755	--
UF-1-2	08/07/84	0915	--
UF-1-4	08/07/84	1110	67
UF-3-2	08/08/84	0830	--
UF-4-3	08/08/84	0945	--
UF-5-2	08/08/84	1130	--

FIELD WATER QUALITY DATA
395627109115901 - UF-1-1

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
12/13/83	--	--	5880	16.0	7.6
01/18/84	--	--	6000	15.0	7.5
02/10/84	0948	--	5560	11.0	8.5
03/16/84	1054	260.0	5412	13.0	9.0
04/24/84	1010	250.0	4834	12.8	9.4
05/14/84	1009	250.0	5166	13.5	8.8
06/20/84	0847	250.0	4699	14.5	9.4
08/07/84	0755	260.0	5888	14.0	9.6
09/11/84	1425	260.0	5200	14.8	9.2

FIELD WATER QUALITY DATA
395627109115902 - UF-1-2

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
11/10/83	--	--	13230	13.0	--
12/13/83	--	--	9240	13.0	8.9
01/18/84	--	--	9100	13.0	8.5
02/10/84	0952	--	9520	11.5	7.7
03/16/84	1108	195.0	8970	13.5	8.5
04/24/84	1027	190.0	7839	13.5	8.4
05/14/84	1026	190.0	8610	13.5	8.4
06/20/84	0854	192.0	7680	14.2	8.0
08/07/84	0915	190.0	9375	14.0	8.1
09/11/84	1440	200.0	9375	15.0	8.7

FIELD WATER QUALITY DATA
395627109115904 - UF-1-4

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
11/10/83	--	--	7075	13.5	8.4
12/13/83	--	--	7920	13.0	7.5
04/24/84	1041	30.0	10590	13.0	7.8
05/14/84	1035	30.0	10240	14.0	7.2
06/20/84	0910	36.0	10560	13.0	7.4
08/07/84	1110	30.0	17120	16.0	6.7
09/11/84	1455	30.0	23400	13.6	7.8

FIELD WATER QUALITY DATA
395829109120002 - UF-3-2

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
11/10/83	--	--	11440	10.1	9.2
12/13/83	--	--	5560	11.0	9.9
01/18/84	--	--	5400	11.0	8.8
02/10/84	1045	--	9940	10.5	8.2
03/16/84	1033	40.0	9588	11.5	--
04/24/84	0936	33.0	9470	12.0	9.0
05/14/84	1110	30.0	9024	14.5	9.2
06/20/84	0932	33.0	9984	14.0	7.4
08/08/84	0830	33.0	12020	13.0	7.8
09/11/84	1520	33.0	12800	13.0	7.6

FIELD WATER QUALITY DATA
395630109120103 - UF-4-3

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
11/10/83	--	--	6672	11.0	9.0
12/13/83	--	--	6394	11.0	7.5
01/18/84	--	--	6200	11.0	7.5
02/10/84	1035	--	6486	10.5	7.2
03/16/84	1025	30.0	6210	12.0	8.2
04/24/84	0944	25.0	5940	12.0	7.6
05/14/84	1105	23.0	6060	14.0	7.0
06/20/84	0943	26.0	6340	13.5	6.9
08/08/84	0945	29.0	7510	13.5	6.9
09/11/84	1510	24.0	7800	13.5	7.4

FIELD WATER QUALITY DATA
395634109120602 - UF-5-2

DATE	TIME	DEPTH OF SAMPLE (FT FM SUR-FACE)	SPECI-FIC CONDUC-TANCE FIELD (UMHOS)	WATER TEMPER-ATURE (DEG C)	PH, FIELD (UNITS)
05/08/84	1130	80.0	6246	16.0	6.9
09/11/84	1320	70.0	5800	13.8	8.0

Hydrometeorological Data

- 1984 Seasonal Precipitation Values
- 1984 Monthly Accumulated Precipitation
- Daily Precipitation Totals at ARA-1, ARA-2, ARA-13 and ARS-9
- Pan Evaporation Data at EVP-1 and EVP-9
- Wind Run Data at EVP-1
- Relative Humidity Data at EVP-1
- Air Temperature Data at EVP-1
- 1984 Seasonal and Annual Isohyetal Analysis

1983 - 1984

WHITE RIVER SHALE PROJECT
SEASONAL PRECIPITATION

STATION	FALL	WINTER	SPRING	SUMMER	ANNUAL
EA-4	3.79	2.98	5.39	4.66	16.82
EB-1	3.92	2.75	E 4.85	3.97	15.49
EV-7	4.24	2.72	4.63	2.87	14.46
EV-8	3.94	2.73	4.95	3.18	14.80
ARA-1	E 3.00	E 1.90	E 4.20	3.10	12.20
ARA-2	3.00	2.10	4.60	4.70	14.40
ARS-9	3.30	2.60	5.20	4.30	15.40
RS-10	3.21	2.26	5.02	3.85	14.34
RS-11	3.46	2.19	4.49	3.57	13.71
RS-13	3.58	2.48	4.50	3.60	14.16
ARA-13	3.80	2.30	E 4.99	3.77	14.86
TRACT MEAN	3.57	2.45	4.80	3.78	14.60
MAXIMUM	4.24	2.98	5.39	4.70	16.82
MINIMUM	3.00	1.90	4.20	2.87	12.20
STANARD DEVIATION	0.41	0.33	0.35	0.60	1.16
TRACT MEAN W/O ARA-1	3.62	2.51	4.86	3.78 *	14.78

* ARA-1 INCLUDED

WHITE RIVER SHALE PROJECT - 1983-1984 (WATER YEAR 1984)

MONTHLY PRECIPITATION (INCHES)

Accumulated

STATION	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ANN
RA-4	0.80	1.54	1.45	0.28	1.33	1.37	2.34	0.21	2.84	1.77	1.49	1.40	16.82
RB-1	1.00	1.44	1.48	0.30	1.07	1.38	2.05 E	0.13	2.67	1.35	1.14	1.48	15.49
RY-7	0.72	1.88	1.64	0.31	1.13 E	1.28 E	2.03	0.13	2.47	1.00	0.97	0.90	14.46
RY-8	0.99	1.55	1.40	0.23	1.17	1.33	2.05	0.12	2.78	1.20	0.90	1.08	14.80
ARA-1	0.60 E	1.30 E	1.10 E	0.10 E	0.90 E	0.90 E	1.80 E	0.10 E	2.30	1.10	0.90	1.10	12.20
ARA-2	0.40	1.40	1.20	0.20	1.10 E	0.80 E	1.70	0.30	2.60	2.00	1.10	1.60	14.40
ARS-9	0.60	1.60	1.10	0.20	1.20 E	1.20 E	2.10	0.20	2.90	1.60	1.60	1.10	15.40
RS-10	0.64	1.62	0.95	0.27	1.13	0.86	1.99	0.23	2.80	1.76	1.11	0.98	14.34
RS-11	0.63	1.84	0.99	0.30	1.05	0.84	2.03	0.21	2.25	1.34	1.20	1.03	13.71
RS-13	0.78	1.43	1.37	0.31	1.24	0.93	1.90	0.21	2.39	1.80	0.88	0.92	14.16
ARA-13	1.30	1.40	1.10	0.30	1.00	1.00	2.20	0.30	2.49 E	1.45	1.18	1.14	14.86
TRACT MEAN (1)	0.77	1.55	1.25	0.25	1.12	1.08	2.02	0.19	2.59	1.49	1.13	1.16	14.60
* TRACT MEAN (2)	0.79	1.57	1.27	0.27	1.14	1.10	2.04	0.20	2.62	1.53	1.16	1.16	14.84
** MAXIMUM	1.30	1.88	1.64	0.31	1.33	1.38	2.34	0.30	2.90	2.00	1.60	1.60	16.82
** MINIMUM	0.40	1.40	0.95	0.20	1.00	0.84	1.70	0.12	2.25	1.00	0.88	0.90	13.71
STANDARD DEVIATION	0.26	0.17	0.23	0.04	0.10	0.24	0.17	0.06	0.23	0.32	0.24	0.23	0.88*

* EXCLUDES GAUGE ARA-1

** EXCLUDES GAUGE ARA-1 FROM OCT 1983 THROUGH MAY 1984

E - ESTIMATED DATA

1989-84

Station: ARA-1 (at retention dam)

Type of Data: Precipitation

New site. Beginning 6/1/84

Date	Time	Tape Reading	Comments	
6-1-84	1545	0	start record	
6-5-84	0345	.1	.10	
"	0545	.2	.10	.30
"	0845	.3	.10	
6-6-84	1330	.5	.20	
"	1730	.6	.10	
"	1745	.7	.10	.50
"	2300	.8	.10	
6-7-84	0030	.9	.10	
"	0100	1.0	.10	
"	0130	1.1	.10	
"	0230	1.2	.10	
"	0315	1.4	.20	.90
"	0345	1.5	.10	
"	0515	1.6	.10	
"	1015	1.7	.10	
6-8-84	0745	1.8	.10	
"	0815	1.9	.10	.30
"	1100	2.0	.10	
6-16-84	1815	2.1	.10	
6-20-84	1300	2.2	.10	
6-25-84	1345	2.3	.10	

1983-84

Station: ARA-1 at retention dam

Type of Data: precipitation

Date	Time	Tape Reading	Comments
7-2-84	1115	2.3	-0-
7-7-84	1615	2.4	.10
7-9-84	1345	2.5	.10
"	1815	2.6	.10 } .40
"	2115	2.7	.10
"	2145	2.8	.10
7-13-84	1330	2.9	.10
7-22-84	1015	3.0	.10 } .20
"	2345	3.1	.10
7-26-84	1600	3.2	.10
7-29-84	0300	3.3	.10 } .20
"	0345	3.4	.10
			1.10
		total July	
7-30-84	1100	3.1	-0-
8-1-84	1130	3.2	.10
8-14-84	1200	3.3	.10
8-19-84	1600	3.4	.10
"	2130	3.5	.10 } .30
"	2230	3.6	.10
8-20-84	0900	3.7	.10 } .20
"	1430	3.8	.10
8-24-84	0945	3.9	.10
8-25-84	1345	4.0	.10
8-31-84	0815	Pulled tape	.90
		total August =	

WHITE RIVER SHALE

Station: ARA-1

Auto-Rain

Date	Time	Tape Reading	Precipitation
8-31-84	0815	4.0	-0-
9-11-84	1015	4.1	.10
"	1145	4.2	.10
"	1345	4.3	.10
"	1445	4.4	.10
"	1645	4.5	.10
9-12-84	1415	4.6	.10
9-16-84	0900	4.7	.10
9-20-84	1945	4.8	.10
9-21-84	0415	4.9	.10
9-24-84	1900	5.0	.10
9-25-84	1130	5.1	.10
			1.10
		Total Sept	
10-1-84	0015	5.1	-0-
"	1130	5.2	.10
"	1200	5.3	.10
"	2015	5.4	.10
"	2115	5.5	.10
10-2-84	0030	5.6	.10
"	0900	5.7	.10
10-4-84	1130	5.8	.10
10-10-84	0545	6.1	.30
"	1530	6.2	.10
10-22-84	1020	TAPE pulled, dial = 6.2	
	TAPE WAS 12 days slow, the drive motor had burned out did not punch from 10-10-84 @ 1800 hours		

WHITE RIVER SHALE

Station:

ARA-2 83-84

10-2-83 .10

Date	Time	Tape Reading	Precipitation
10-4-83	0930	4.0	-0-
10-7-83	1915	4.1	.10
10-14-83	0045	4.2	.10
10-15-83	1045	4.3	.10
		total, October	.40 ✓
		total for Feb. → NIHL.	1.9 ✓
4-3-84	1115	.1	-0-
4-9-84	2115	.2	.10
"	2215	.3	.10 } .30
"	2330	.4	.10 }
4-10-84	0330	.5	.10
4-17-84	0515	.6	.10
4-19-84	0015	.7	.10
"	0345	.8	.10
"	0445	.9	.10
"	0600	1.0	.10 } .70
"	0715	1.1	.10
"	0930	1.2	.10
"	1400	1.3	.10
4-24-84	0400	1.4	.10
"	0445	1.5	.10 } .40
"	0530	1.6	.10
"	0945	1.7	.10
4-25-84	0930	1.8	.10
4-30-84	1030	pulled tape	
tape was 1 day slow.		total APRIL	1.70 ✓

1983-84

Station: ARA-2 Cutts-Kain gage

Type of Data: precipitation

Date	Time	Tape Reading	Comments	
4-30-84	1000	1.8	-0-	
5-2-84	0245	1.9	.10	
5-29-84	2145	2.0	.10	
5-30-84	0500	2.1	.10	
			.30	
		total 111Hg		
5-30-84	0515	2.1	-0-	
6-3-84	0715	2.2	.10	
"	1030	2.3	.10	.30
"	1800	2.4	.10	
6-4-84	1445	2.5	.10	
"	1500	2.6	.10	
"	1845	2.7	.10	.50
	1900	2.8	.10	
"	1915	2.9	.10	
6-5 84	0100	3.0	.10	
"	0130	3.1	.10	
"	0200	3.2	.10	
"	0230	3.3	.10	
"	0315	3.4	.10	1.10
"	0415	3.6	.20	
"	0445	3.7	.10	
"	0500	3.8	.10	
"	0930	3.9	.10	
"	1545	4.0	.10	
6-6-84	0915	4.1	.10	
	0980	4.2	.10	.30
	1500	4.3	.10	
6-7-84	0730	4.7	.10	

1983-84

Station: ARA-2

Type of Data: Precipitation

Date	Time	Tape Reading	Comments	
6-12-84	1600	4.5	.10	
6-20-84	1300	4.7	.20	
		total June	2.60	
7-2-84	1130	4.7	-0-	
7-9-84	1215	4.8	.10	.60
"	1815	4.9	.10	
"	2130	5.2	.30	
"	2145	5.3	.10	
7-13-84	1330	5.4	.10	
7-23-84	0030	5.7	.30	.80
"	0045	6.1	.40	
"	0100	6.2	.10	
7-26-84	1630	6.4	.20	
7-28-84	2330	6.5	.10	
7-30-84	0530	6.6	.10	.30
"	0600	6.7	.10	
		total July	2.00	

Station: ARA-2 1983-84

Type of Data: precipitation

Date	Time	Tape Reading	Comments
7-31-84	0815	6.7	-0-
8-1-84	0545	6.8	.10 } .20
"	2200	6.9	.10 }
8-15-84	1215	7.0	.10
8-18-84	0415	7.1	.10
8-19-84	1015	7.3	.20 } .40
"	1115	7.4	.10 }
"	1800	7.5	.10 }
8-20-84	0245	7.6	.10
8-23-84	0815	7.7	.10
8-25-84	0230	7.8	.10
8-31-84	0930	pulled tape	—
	total	August —	1.10

Station: ARA-13 1983-84

Date	Time	Tape Reading	Precipitation
10-1-83	0000	.6	-0-
"	1915	.7	.10 } there are
"	1945	.8	.10 } part of the
"	2000	.9	.10 } total of .80
"	2100	1.0	.10 } to the 5th
10-2-83	0145	1.1	.10
→ Tape did not advance from this date, but end up with 1.9 on the 5th			
10-5-83	1215	1.9	.80
10-7-83	1845	.3	.10
"	1900	.4	.10
"	1945	.5	.10
10-10-83	1130	.6	.10
10-14-83	0300	.7	.10
		Total, October	1.30
11-1-83	0800	(new charge) 2.7	-0-
11-2-83	0830	2.8	.10
11-8-83	0145	2.9	.10 } .40
"	0400	3.0	.10 } .40
"	0515	3.1	.10 } .40
"	0930	3.2	.10 } .40
11-13-83	0545	3.3	.10
11-14-83	0045	3.4	.10
11-20-83	0800	3.5	.10 } .20
"	2300	3.6	.10 } .20
11-21-83	0130	3.7	.10
"	0415	3.8	.10
"	1145	3.9	.10
11-25-83	0830	4.0	.10
11-26-83	0200	4.1	.10

Station: ARA-13 1983-84

Type of Data: Precipitation

Date	Time	Tape Reading	Comments
12-1-83	2315	4.2	.10
12-3-83	2245	4.3	.10
12-15-83	0145	4.4	.10 } .20
-15-	0930	4.5	.10 }
12-23-83	2345	4.6	.10
12-24-83	2230	4.7	.10
12-25-83	0345	4.8	.10
-25-	1745	4.9	.10 } .30
-25-	2030	5.0	.10 }
12-26-83	0415	5.1	.10
12-27-83	1815	5.2	.10
		Total Dec. =	1.10
1-1-84	0800	5.2	-0-
1-11-84	0845	5.3	.10
1-14-84	0245	5.4	.10
"	1730	5.5	.10
		total Jan.	.30
2-1-84	1215	5.5	-0-
2-14-84	0700	5.6	.10
-14-	0800	5.7	.10
"	0845	5.8	.10
"	0930	5.9	.10
"	1030	6.0	.10 } .90
"	1115	6.1	.10
"	1130	6.2	.10
"	1245	6.3	.10

Station: ARH-13 1983-84

Type of Data: precipitation

Date	Time	Tape Reading	Comments
2-17-84	1130	6.5	.10
		TOTAL February	1.0
3-3-84	0830	6.6	.10
3-14-84	1430	6.7	.10
"	1700	6.8	.10
3-16-84	0100	6.9	.10
3-17-84	2115	7.0	.10
3-18-84	0045	7.1	.10
3-21-84	2030	7.2	.10
"	2200	7.3	.10
3-22-84	0845	7.4	.10
3-27-84	0315	7.5	.10
		total MARCH	1.0
4-1-84	0930	7.6	.10
"	1800	7.8	.20
4-2-84	2045	7.9	.10
4-5-84	1045	.0	new charge to gage
4-9-84	0515	.1	.10
4-10-84	2000	.2	.10
"	2100	.3	.10
"	2145	.4	.10
4-18-84	0230	.5	.10
"	0315	.6	.10
4-19-84	1445	.7	.10
"	2245	.8	.10

Station: ARA-13 auto-Rain

Type of Data: precipitation 1983-84

6-1-84 gage moved to new site at dam ARA-1

Date	Time	Tape Reading	Comments	
4-20-84	0215	.9	.10	
"	0330	1.0	.10	
"	0445	1.1	.10	
"	0630	1.2	.10	.60
"	0730	1.3	.10	
"	0900	1.4	.10	
4-25-84	0200	1.5	.10	
"	0300	1.6	.10	.30
"	0345	1.7	.10	
4-26-84	2400	1.8	.10	
4-30-84	0745	1.8	-0-	
		total APRIL	2.20	
4-30-84	0745	1.8	-0-	
5-1-84	0515	1.9	.10	
5-4-84	0200	2.0	.10	
5 30-84	2030	2.1	.10	
		total May	.30	

ARS-9

WHITE RIVER SHALE

Station:

10/2/83 seat tape bad.
9/23/83 - 10/4/88 total 0.30 B/ assume 10/2

11/15.40
plus .20
11/19/84.50
11/5 T-3 — straight line

Date	Time	Tape Reading	Precipitation
10-4-83	1115	1.6	-0-
10-7-83	1845	1.7	.10
"	1900	1.8	.10
"	2000	1.9	.10
		total NOV =	1.60
		Dec =	1.10
		JAN =	.20
		Feb. = 3	2.40
		MAR. = 3	
4-3-84	1315	0	-0-
4-10-84	1715	.1	.10
"	2015	.2	.10
"	2145	.3	.10
4-18-84	0230	.4	.10
"	0345	.5	.10
4-19-84	2130	.6	.10
"	2230	.7	.10
4-20-84	0215	.8	.10
"	0300	.9	.10
"	0400	1.0	.10
"	0445	1.1	.10
"	0645	1.2	.10
"	0800	1.3	.10
"	1015	1.4	.10
4-25-84	0200	1.5	.10
"	0245	1.6	.10
"	0315	1.7	.10
"	0545	1.8	.10

1983-84

Station: ARS-9 Auto-Rain gage

Type of Data: Precipitation

Date	Time	Tape Reading	Comments
4-26-84	0745	2.0	.10
4-29-84	1400	2.1	.10
4-30-84	0930	Pulled tape	
		total, APRIL	2.10
4-30-84	1015	2.1	-0-
5-2-84	1230	2.2	.10
5-31-84	1945	2.3	.10
		total MAY	.20
6-1-84	0015	2.3	-0-
6-5-84	0430	2.4	.10
"	0600	2.5	.10 .40
"	1415	2.6	.10
"	1945	2.7	.10
6-6-84	1330	2.8	.10
"	1345	2.9	.10
"	1745	3.1	.20 .60
"	1800	3.2	.10
"	2345	3.3	.10
6-7-84	0045	3.4	.10
"	0115	3.5	.10
"	0200	3.6	.10
"	0300	3.7	.10
"	0330	3.8	.10 .90
"	0345	3.9	.10
"	0415	4.0	.10
"	0915	4.1	.10
6-7-84	1015	4.2	.10

1983-84

Station: HRS-9 Auto-Rain Gage

Type of Data: Precipitation

Date	Time	Tape Reading	Comments	
6-8-84	0800	4.3	.10	
"	0830	4.4	.10	
"	1100	4.5	.10	
"	2330	4.6	.10	
6-12-84	1230	4.7	.10	
6-20-84	1300	5.0	.30	
"	1345	5.1	.10	
6-30-84	1315	5.2	.10	
		total June	2.90	
7-2-84	1100	5.2	-0-	
7-9-84	2230	5.3	.10	
7-10-84	1330	5.4	.10	
"	1345	5.6	.20	.50
"	2030	5.7	.10	
"	2115	5.8	.10	
7-14-84	1130	5.9	.10	
7-23-84	0015	6.0	.10	
	0030	6.1	.10	.30
	0045	6.2	.10	
7-26-84	1600	6.3	.10	
"	1615	6.4	.10	.30
"	1630	6.5	.10	
7-30-84	0500	6.6	.10	
"	0530	6.7	.10	.30
"	0615	6.8	.10	
		total July	1.60	

Station: ARS-9 1983-84

Type of Data: precipitation

Date	Time	Tape Reading	Comments
7-31-84	0915	6.8	0
8-1-84	0900	6.9	.10
8-14-84	0015	7.0	.10 } .20
"	0530	7.1	.10
8-15-84	2200	7.2	.10 } .20
"	2230	7.3	.10
8-19-84	1800	7.4	.10 } .40
"	2115	7.5	.10
"	2200	7.6	.10
"	2300	7.7	.10
8-20-84	0815	7.8	.10 } .20
"	1300	7.9	.10
8-22-84	1715	8.0	.10
8-23-84	1400	8.1	.10 } .30
"	1430	8.2	.10
"	1800	8.3	.10
8-25-84	1330	8.4	.10
8-31-84	1000	pulled tape	1.6
		total August	

WHITE RIVER SHALE

Station: ARS-9

Auto-Rain

Date	Time	Tape Reading	Precipitation	
8-31-84	1000	8.4	-0-	
9-11-84	1030	8.5	.10	.60
"	1115	8.6	.10	
"	1345	8.9	.30	
"	1630	9.0	.10	
9-12-84	1515	9.1	.10	
9-16-84	0530	9.2	.10	
9-20-84	2000	9.3	.10	
9-24-84	1830	9.4	.10	.20
"	2215	9.5	.10	
			1.10	
		total Sept.		
10-1-84	0015	9.5	-0-	
"	0945	9.6	.10	.60
"	1115	9.7	.10	
"	1200	9.8	.10	
"	1645	9.9	.10	
"	2100	10.0	.10	
"	2300	10.1	.10	
10-2-84	0245	10.2	.10	
10-4-84	0345	10.3	.10	
10-12-84	0645	10.4	.10	.30
"	0800	10.5	.10	
"	1045	10.6	.10	
10-15-84	1100	end of data collection	1.10	
		total October		

EVAPORATION STATION
EVP-1

DATE: 6-1-84

TIME: 1540

HOOK GAGE READING (before adding water) Start of Record

HOOK GAGE READING (after adding water) 37.58 (3.96)?

WIND RUN 0000

WATER TEMPERATURE (min.)

WATER TEMPERATURE (max.)

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		✓
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: 6-11-84

TIME: 1213

HOOK GAGE READING (before adding water) 3?.91 > (3.89)

HOOK GAGE READING (after adding water) 3?.91 ?

WIND RUN

WATER TEMPERATURE (min.)

WATER TEMPERATURE (max.)

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?
PAN LEAKING?
OIL FILM ON WATER?
ALGAE IN PAN?
SEDIMENT IN PAN?
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO
HYGROTHERMOGRAPH CHECKED?
HYGROTHERMOGRAPH CHART REMOVED? YES NO

EVAPORATION STATION
EVP-1

DATE: 6-18-84

TIME: 1203

HOOK GAGE READING (before adding water) 1.61

HOOK GAGE READING (after adding water) 2.32

WIND RUN 00388

WATER TEMPERATURE (min.) 42.

WATER TEMPERATURE (max.) 87.

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		✓
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: 6-19-84

TIME: 0950

HOOK GAGE READING (before adding water) 1.97

HOOK GAGE READING (after adding water) 2.71

WIND RUN 0423

WATER TEMPERATURE (min.) 67.0

WATER TEMPERATURE (max.) 78.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

B Hall

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		✓
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: 6-25-84

TIME: 0930

HOOK GAGE READING (before adding water) .07

HOOK GAGE READING (after adding water) 2.19

WIND RUN 00518

WATER TEMPERATURE (min.) 52.0

WATER TEMPERATURE (max.) 91.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		✓
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: 6-26-84

TIME: 0930

HOOK GAGE READING (before adding water) 1.93

HOOK GAGE READING (after adding water) 3.22

WIND RUN 00533

WATER TEMPERATURE (min.) 57.0

WATER TEMPERATURE (max.) 83.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?	✓	
OIL FILM ON WATER?	✓	
ALGAE IN PAN?	✓	
SEDIMENT IN PAN?	✓	
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: 6-28-84

TIME: 0853

HOOK GAGE READING (before adding water) 2.49

HOOK GAGE READING (after adding water) 3.15

WIND RUN 00576

WATER TEMPERATURE (min.) 57.0

WATER TEMPERATURE (max.) 90.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

(est. 6 gals of water added at this visit)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	✓ Small film on bottom
PRECIPITATION GAGE CHECKED?	✓
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	✓
HYGROTHERMOGRAPH CHART REMOVED?	YES ____ NO ✓

EVAPORATION STATION
EVP-1

DATE: 7-2-84

TIME: 1110

HOOK GAGE READING (before adding water) 1.80

HOOK GAGE READING (after adding water) 3.09

WIND RUN 00622

WATER TEMPERATURE (min.) 58.0

WATER TEMPERATURE (max.) 92.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	OK	
PAN LEAKING?	✓	
OIL FILM ON WATER?	✓	
ALGAE IN PAN?	✓	
SEDIMENT IN PAN?	✓	Small film on bottom
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES ✓	NO
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: July 05 1984

TIME: 1121 MST

HOOK GAGE READING (before adding water) 1.68

HOOK GAGE READING (after adding water) 2.87

WIND RUN 00712

WATER TEMPERATURE (min.) 54.0

WATER TEMPERATURE (max.) 89.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?	✓ Small amount	
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: July 09 1984

TIME: 1017

HOOK GAGE READING (before adding water) 1.51

HOOK GAGE READING (after adding water) 2.86

WIND RUN 00779

WATER TEMPERATURE (min.) 56.°

WATER TEMPERATURE (max.) 93.°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL? ✓
PAN LEAKING? ✓
OIL FILM ON WATER? ✓
ALGAE IN PAN? ✓
SEDIMENT IN PAN? small amount on bottom
PRECIPITATION GAGE CHECKED? ✓
PRECIPITATION CHART REMOVED? YES — NO —
HYGROTHERMOGRAPH CHECKED? ✓
HYGROTHERMOGRAPH CHART REMOVED? YES — NO —

EVAPORATION STATION
EVP-1

DATE: July 10 1984

TIME: 0716

HOOK GAGE READING (before adding water) 1.27

HOOK GAGE READING (after adding water) 3.23

WIND RUN 00854

WATER TEMPERATURE (min.) 58°C

WATER TEMPERATURE (max.) 94°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

110 ML Copper Sulfate sol. was added to water -

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	~~sediment over~~ bottom (light)
PRECIPITATION GAGE CHECKED?	
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	✓
HYGROTHERMOGRAPH CHART REMOVED?	YES ✓ NO ____

EVAPORATION STATION
EVP-1

DATE: July 19 1954

TIME: 0820

HOOK GAGE READING (before adding water) 1.96

HOOK GAGE READING (after adding water) 3.62

WIND RUN 00897

WATER TEMPERATURE (min.) 57.0

WATER TEMPERATURE (max.) 93.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

dry & hot

MAINTENANCE CHECKLIST

PAN LEVEL? ✓
PAN LEAKING? ✓
OIL FILM ON WATER? ✓
ALGAE IN PAN? ✓
SEDIMENT IN PAN? Small amount
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO ✓
HYGROTHERMOGRAPH CHECKED? ✓
HYGROTHERMOGRAPH CHART REMOVED? YES NO ✓

EVAPORATION STATION
EVP-1

DATE: July 25 1984

TIME: 0910

HOOK GAGE READING (before adding water)	1.97
HOOK GAGE READING (after adding water)	3.08
WIND RUN	01005
WATER TEMPERATURE (min.)	62.0
WATER TEMPERATURE (max.)	910
AIR TEMPERATURE	
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

light showers over the weekend

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		✓
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: July 30 1984

TIME: 1005

HOOK GAGE READING (before adding water) 1.91

HOOK GAGE READING (after adding water) 3.12

WIND RUN 01046

WATER TEMPERATURE (min.) 62.0

WATER TEMPERATURE (max.) 92.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

Rain Shower over night

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	Small amount
PRECIPITATION GAGE CHECKED?	✓
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	
HYGROTHERMOGRAPH CHART REMOVED?	YES ____ NO ____

EVAPORATION STATION
EVP-1

DATE: Aug 02 1984

TIME: 1207

HOOK GAGE READING (before adding water)	2.46
HOOK GAGE READING (after adding water)	3.18
WIND RUN	01069
WATER TEMPERATURE (min.)	62.0
WATER TEMPERATURE (max.)	94.0
AIR TEMPERATURE	
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	~~Small amount~~ ✓
PRECIPITATION GAGE CHECKED?	✓
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	✓
HYGROTHERMOGRAPH CHART REMOVED?	YES ____ NO ✓

EVAPORATION STATION
EVP-1

DATE: Aug 06 1984

TIME: 1236

HOOK GAGE READING (before adding water) 1.96

HOOK GAGE READING (after adding water) 2.50

WIND RUN 01109

WATER TEMPERATURE (min.) 58.0

WATER TEMPERATURE (max.) 92.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?	✓	
OIL FILM ON WATER?	✓	
ALGAE IN PAN?	✓	
SEDIMENT IN PAN?	Small flakes	
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES ✓	NO

EVAPORATION STATION
EVP-1

DATE: Aug 9 1984

TIME: 0940

HOOK GAGE READING (before adding water) 1.56

HOOK GAGE READING (after adding water) 3.28

WIND RUN 01143

WATER TEMPERATURE (min.) _____

WATER TEMPERATURE (max.) _____

AIR TEMPERATURE _____

RELATIVE HUMIDITY _____

COMMENTS (recent weather, unusual activity in area, etc.)

clear -

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	✓
PRECIPITATION GAGE CHECKED?	✓
PRECIPITATION CHART REMOVED?	YES _____ NO ✓
HYGROTHERMOGRAPH CHECKED?	
HYGROTHERMOGRAPH CHART REMOVED?	YES _____ NO _____

EVAPORATION STATION
EVP-1

DATE: Aug 13, 84

TIME: 1258

HOOK GAGE READING (before adding water)	1.86
HOOK GAGE READING (after adding water)	3.13
WIND RUN	01175
WATER TEMPERATURE (min.)	58.°
WATER TEMPERATURE (max.)	96.°
AIR TEMPERATURE	
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

Partly cloudy, light wind, JLD

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?	✓	
OIL FILM ON WATER?	✓	
ALGAE IN PAN?	✓	
SEDIMENT IN PAN?	Small amount.	
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?	✓	
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: Aug 16 1984

TIME: 1205

HOOK GAGE READING (before adding water)	2.15
HOOK GAGE READING (after adding water)	3.19
WIND RUN	11221
WATER TEMPERATURE (min.)	64.0
WATER TEMPERATURE (max.)	94.0
AIR TEMPERATURE	
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	✓
OIL FILM ON WATER?	✓
ALGAE IN PAN?	✓
SEDIMENT IN PAN?	Small Amount
PRECIPITATION GAGE CHECKED?	✓
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	✓
HYGROTHERMOGRAPH CHART REMOVED?	YES ____ NO ✓

EVAPORATION STATION
EVP-1

Aug 20 1984
8537

AGE READING (before adding water) 2.78

AGE READING (after adding water) 3.19

UN 01248

TEMPERATURE (min.) 65.°

TEMPERATURE (max.) 94.°

MPERATURE

VE HUMIDITY

TS (recent weather, unusual activity in area, etc.)

light rain showers.

ANCE CHECKLIST

EL?
AKING?
M ON WATER?
N PAN?
T IN PAN?
TATION GAGE CHECKED?
TATION CHART REMOVED? YES NO
ERMOGRAPH CHECKED?
ERMOGRAPH CHART REMOVED? YES NO

EVAPORATION STATION
EVP-1

DATE: Aug 23 1984

TIME: 1030

HOOK GAGE READING (before adding water)	2.76
HOOK GAGE READING (after adding water)	3.12
WIND RUN	0124
WATER TEMPERATURE (min.)	66.0
WATER TEMPERATURE (max.)	86.0
AIR TEMPERATURE	
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

clear to partly cloudy

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?	Smeared around	
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: Aug 27 1984

TIME: 1035

HOOK GAGE READING (before adding water) 2.59

HOOK GAGE READING (after adding water) 3.18

WIND RUN 01288

WATER TEMPERATURE (min.) 56.°

WATER TEMPERATURE (max.) 87.°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

Clear -

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?	Small amount	
PRECIPITATION GAGE CHECKED?		✓
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		✓
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: Aug 31 1984

TIME: 0805

HOOK GAGE READING (before adding water) 1.80

HOOK GAGE READING (after adding water) 3.09

WIND RUN 01312

WATER TEMPERATURE (min.) 58.0

WATER TEMPERATURE (max.) 88.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

clear —

MAINTENANCE CHECKLIST

PAN LEVEL? ←
PAN LEAKING? ←
OIL FILM ON WATER? ←
ALGAE IN PAN? ←
SEDIMENT IN PAN? small amount
PRECIPITATION GAGE CHECKED? ←
PRECIPITATION CHART REMOVED? YES ← NO
HYGROTHERMOGRAPH CHECKED? ←
HYGROTHERMOGRAPH CHART REMOVED? YES NO ←

EVAPORATION STATION
EVP-1

Sept 4, By phone

DATE: Sept 07 1984 Yes

TIME: 0928 0817

HOOK GAGE READING (before adding water)	1.85	1.85
HOOK GAGE READING (after adding water)	3.07	3.04
WIND RUN	01485	01356
WATER TEMPERATURE (min.)	48.0	48°
WATER TEMPERATURE (max.)	85.0	84°
AIR TEMPERATURE		
RELATIVE HUMIDITY		

COMMENTS (recent weather, unusual activity in area, etc.)

Cloudy & Windy BA

weather Cloudy -

MAINTENANCE CHECKLIST

PAN LEVEL?		
PAN LEAKING?		
OIL FILM ON WATER?		
ALGAE IN PAN?		
SEDIMENT IN PAN?		
PRECIPITATION GAGE CHECKED?		
PRECIPITATION CHART REMOVED?	YES	NO
HYGROTHERMOGRAPH CHECKED?		
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO

EVAPORATION STATION
EVP-1

DATE: Sept 10 1984

TIME: 1250

HOOK GAGE READING (before adding water) 2.02

HOOK GAGE READING (after adding water) 3.16

WIND RUN 01519

WATER TEMPERATURE (min.) 46.°

WATER TEMPERATURE (max.) 84.°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?		—
PRECIPITATION GAGE CHECKED?		
PRECIPITATION CHART REMOVED?	YES	NO
HYGROTHERMOGRAPH CHECKED?		
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO

EVAPORATION STATION
EVP-1

DATE: Sept 14 1974

TIME: 0925

HOOK GAGE READING (before adding water) 3.17

HOOK GAGE READING (after adding water) 3.14

WIND RUN 01541

WATER TEMPERATURE (min.) 53.0

WATER TEMPERATURE (max.) 85.0

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

clear.

Removed .03 of water

MAINTENANCE CHECKLIST

PAN LEVEL?
PAN LEAKING?
OIL FILM ON WATER?
ALGAE IN PAN?
SEDIMENT IN PAN?
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO
HYGROTHERMOGRAPH CHECKED?
HYGROTHERMOGRAPH CHART REMOVED? YES NO

EVAPORATION STATION
EVP-1

DATE: Sept 17, 1984

TIME: 1020

HOOK GAGE READING (before adding water) 2.54

HOOK GAGE READING (after adding water) 3.09

WIND RUN 01558

WATER TEMPERATURE (min.) 54°

WATER TEMPERATURE (max.) 82.°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

Clear -

MAINTENANCE CHECKLIST

PAN LEVEL?
PAN LEAKING?
OIL FILM ON WATER?
ALGAE IN PAN?
SEDIMENT IN PAN?
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO
HYGROTHERMOGRAPH CHECKED?
HYGROTHERMOGRAPH CHART REMOVED? YES NO

EVAPORATION STATION
EVP-1

DATE: Sept 21 1984

TIME: 0900

HOOK GAGE READING (before adding water) 2.52

HOOK GAGE READING (after adding water) 3.15

WIND RUN 01581

WATER TEMPERATURE (min.) 51.°

WATER TEMPERATURE (max.) 83.°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

rain Showers during the night
Am.

MAINTENANCE CHECKLIST

PAN LEVEL?
PAN LEAKING?
OIL FILM ON WATER?
ALGAE IN PAN?
SEDIMENT IN PAN?
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO
HYGROTHERMOGRAPH CHECKED?
HYGROTHERMOGRAPH CHART REMOVED? YES NO

EVAPORATION STATION
EVP-1

DATE: Sept 28 1984

TIME: 0836

HOOK GAGE READING (before adding water)	1.95
HOOK GAGE READING (after adding water)	3.12
WIND RUN	01667
WATER TEMPERATURE (min.)	38.0
WATER TEMPERATURE (max.)	76.0
AIR TEMPERATURE	6.3 C
RELATIVE HUMIDITY	

COMMENTS (recent weather, unusual activity in area, etc.)

Clear - and cool BH

MAINTENANCE CHECKLIST

PAN LEVEL?	✓
PAN LEAKING?	–
OIL FILM ON WATER?	–
ALGAE IN PAN?	–
SEDIMENT IN PAN?	Small amount
PRECIPITATION GAGE CHECKED?	
PRECIPITATION CHART REMOVED?	YES ____ NO ✓
HYGROTHERMOGRAPH CHECKED?	–
HYGROTHERMOGRAPH CHART REMOVED?	YES ____ NO ✓

EVAPORATION STATION
EVP-1

DATE: Oct 03 1984 B. Hale
TIME: 0855

HOOK GAGE READING (before adding water) 3.15
HOOK GAGE READING (after adding water) 3.15 *
WIND RUN 01680
WATER TEMPERATURE (min.) 32.°
WATER TEMPERATURE (max.) 69.°
AIR TEMPERATURE
RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

* had rain last 3 days, no water added at this visit

MAINTENANCE CHECKLIST

PAN LEVEL?	✓	
PAN LEAKING?		✓
OIL FILM ON WATER?		✓
ALGAE IN PAN?		✓
SEDIMENT IN PAN?	~~Small amount~~	
PRECIPITATION GAGE CHECKED?	✓	
PRECIPITATION CHART REMOVED?	YES	NO ✓
HYGROTHERMOGRAPH CHECKED?		
HYGROTHERMOGRAPH CHART REMOVED?	YES	NO ✓

EVAPORATION STATION
EVP-1

DATE: Oct 15 1984

TIME: 1322

HOOK GAGE READING (before adding water) 2.07

HOOK GAGE READING (after adding water) 3.15

WIND RUN 01731

WATER TEMPERATURE (min.) 36°

WATER TEMPERATURE (max.) 72°

AIR TEMPERATURE

RELATIVE HUMIDITY

COMMENTS (recent weather, unusual activity in area, etc.)

Cloudy / Some Showers

Record stopped for the year

MAINTENANCE CHECKLIST

PAN LEVEL?
PAN LEAKING?
OIL FILM ON WATER?
ALGAE IN PAN?
SEDIMENT IN PAN?
PRECIPITATION GAGE CHECKED?
PRECIPITATION CHART REMOVED? YES NO
HYGROTHERMOGRAPH CHECKED?
HYGROTHERMOGRAPH CHART REMOVED? YES NO

STATION EVAPORATION - 9 SEASON TOTAL 1983-84

Date	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								START -				
2	Point											
3												
4	Removed .850											
5								Freezing		1.850		1.30
6												
7								Heights at				
8												
9								Temps.				
10								-0-			1.800	
11												
12									REMOVED .325	.650		
13	.300											1.15
14												
15												
16											700	
17	Record Stopped							1.000				
18												
19									1.000	1.650		
20												
21												
22												
23								925				
24												
25									1.150			
26										925		
27												
28												1.25
29												
30								1.125				
31										.150	1.400	
								3.050	2.150	5.225	3.900	3.70

RET DAM

W.R.S.P. WIND RUN RECORD SITE ~~ARS-9~~ EVAP 1

MOT ignore decimal

Date	Time	Reading (Miles)	Tech. Initials
6-6-84	1410	0014.1	H.H.
6-11-84	1213	0026.4	B.H
6-12-84	1515	00275	H.H.
6-18-84	1040	00387	H.H.
6-22-84	1130	00471	H.H
6-25-84	0930	00518	B.H.
6-27-84	0945	00563	H.H
7-3-84	1430	00659	H.H.
7-9-84	1240	00781	H.H.

All times are Mountain Daylight Time

EVAP 1

W.R.S.P. WIND RUN RECORD SITE [redacted]9

Date	Time	Reading (Miles)	Tech. Initials
7-11-84	1340	00853	HH
7-20-84	1225	00925	HH
7-25-84	1025	01005	HH
7-31-84	0000	01048	HH

All times are Mountain Daylight Time

EVAP 1

SITE ARS-9

W.R.S.P. WIND RUN RECORD

Date	Time	Reading (Miles)	Tech. Initials
8-6-84	1242	01109	H.H.
8-10-84	1105	01149	H.H.
8-16-84	1410	01211	H.H
8-22-84	1550	01264	H.H.
8-28-84	1350	01294	H.H
9-3-84	1515	01354	H.H.

All times are Mountain Daylight Time

EVAP

W.R.S.P. WIND RUN RECORD SITE ~~WRSP~~

Date	Time	Reading (Miles)	Tech. Initials
9-7-84	1502	01448	H.H.
9-13-84	1217	01540	H.H.
9-19-84	1155	01559	H.H.
9-25-84	1115	01657	H.H.
10-1-84	0952	01673	H.H.

All times are Mountain Daylight Time

EVAP 1

[redacted]

W.R.S.P. WIND RUN RECORD

Date	Time	Reading (Miles)	Tech. Initials
10-5-84	0955	01688	H.H.
10-11-84	1231	01695	H.H.
10-17-84	1045	01760	H.H.
END OF MONITORING			

All times are Mountain Daylight Time

HOURLY ~~PRECIPITATION~~ (Inches)

Station: EVAP-1 Rch D.A.M

Date: Jun - 1984

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1													43	38	36	28	26	26	25.5	33	45	52	64	72	
2	67	66	70	75	79	82	82	71	49	32	30	30	29	26	20	16	15	14	14	16	20	20	23	25	978
3	27	29	31	42	48	53	59	58	55	45	38	37	31	36	35	40	39	49	69	69	74	82	86	91	1,223
4	90	93	95	95	96	97	97	82	57	46	38	32	29	27	23	23	23	23	26	37	38	39	39	42	1,287
5	43	52	74	75	87	88	93	87	81	81	88	80	70	60	52	70	77	66	67	64	77	82	83	71	1,788
6	95	93	97	77	98	78	92	92	94	92	68	72	66	95	73	77	83	77	90	36	89	90	91	90	2137
7	90	95	[illegible]	[illegible]	92	89	89	91	87	93	85	72	65	45	41	36	35	37	32	57	64	70	63	81	1,719
8	85	80	91	92	91	89	91	70	92	70	85	74	80	76	65	67	78	67	70	69	74	88	80	90	1,950
9	93	84	89	94	98	97	97	83	73	60	54	46	38	36	34	33	33	33	32	37	38	50	54	54	1,447
10	55	70	82	88	91	93	93	75	59	50	42	30	28	31	[illegible]	22	46	49	52	57	45	[illegible]	[illegible]	47	1,318
11	49	59	67	72	76	88	83	69	55	44	41	38	32	33	28	28	27	22	22	27	32	[illegible]	60	65	1175
12	67	59	75	78	83	87	85	64	50	42	38	31	28	27	pm	working	[illegible]	[illegible]	[illegible]	26	50	90	82	47	1012
13	64	69	70	73	88	83	88	60	57	46	24	22	21	20	20	20	20	19	19	25	39	40	52	57	1011
14	66	67	73	78	82	85	85	64	50	41	26	22	22	22	21	17	18	19	18	20	23	26	29	29	1004
15	30	32	38	40	42	44	47	42	36	31	29	29	29	28	28	27	30	31	31	32	41	[illegible]	53	54	868
16	60	65	67	68	72	79	75	60	58	41	35	36	45	43	40	35	48	79	76	73	74	82	82	70	1188
17	87	93	96	96	94	97	92	73	57	47	42	37	31	26	22	19	19	17	20	26	32	38	48	60	1270
18	71	77	69	79	94	86	81	62	50	41	42	39	35	32	37	28	27	28	28	28	35	49	57	62	1232
19	63	69	74	79	82	86	89	87	77	63	45	44	40	27	27	23	26	26	30	12	46	46	51	54	1201
20	68	63	69	71	73	73	79	92	70	65	60	53	51	59	60	42	45	37	35	29	42	44	46	46	1363
21	59	70	72	74	78	84	92	86	70	56	40	27	25	23	21	19	18	17	16	16	16	19	21	31	1050
22	41	44	45	52	59	65	68	66	59	50	41	37	32	28	27	26	25	24	24	25	25	[illegible]	33	45	972
23	50	57	61	63	66	70	72	61	52	45	41	36	33	32	30	26	24	23	23	24	26	[illegible]	43	46	1038
24	54	53	58	67	73	78	77	71	61	51	44	37	33	27	25	22	22	22	22	24	25	29	30	31	1058
25	36	42	48	48	54	58	61	62	60	59	65	75	70	60	52	48	44	43	43	43	45	54	57	60	1289
26	60	60	63	67	74	78	74	74	67	52	50	44	41	35	31	31	31	31	32	39	45	50	56	55	1236
27	62	69	74	78	82	84	85	77	67	52	49	45	40	27	27	26	26	26	26	26	33	48	40	45	1286
28	52	56	61	66	69	74	77	74	65	46	43	38	33	30	27	22	20	20	20	20	26	[illegible]	27	34	1032
29	42	49	55	59	64	69	74	71	64	54	39	37	35	26	25	27	26	25	25	26	30	32	35	36	1025
30	41	43	44	45	49	56	60	61	58	54	50	68	89	90	75	62	60	56	57	60	63	65	69	72	1417
31																									
Total																									

HOURLY ~~PRECIPITATION~~ (Inches)

Station: EVAP-1

Date: July 1984

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1	77	82	85	86	91	94	94	90	72	62	56	50	39	33	29	23	82	22	22	23	30	36	37	43	1308
2	46	51	56	62	66	70	72	65	56	46	42	39	32	26	22	19	19	19	19	20	21	24	26	27	447
3	37	42	45	50	54	58	64	57	49	40	35	29	25	23	23	23	22	22	21	22	27	29	32	35	852
4	32	34	36	42	47	54	57	60	51	45	40	35	32	19	27	25	24	24	24	24	30	34	35	869
5	35	42	44	49	53	56	62	61	53	44	39	35	30	27	26	23	21	19	18	18	18	26	27	27	854
6	32	37	42	43	49	53	58	60	52	47	38	32	29	27	23	22	18	18	18	21	26	31	34	832
7	34	36	42	42	43	44	45	45	47	44	36	31	29	30	31	41	52	56	57	54	58	62	68	76	1106
8	70	68	74	69	67	66	68	73	60	56	53	46	47	44	38	33	33	33	35	36	43	57	68	89	1326
9	86	87	94	95	90	93	91	90	82	66	59	50	45	48	65	58	55	53	60	66	66	70	93	86	1750
10	77	87	88	91	98	97	97	97	87	82	74	66	53	41	29	27	22	21	21	21	25	37	41	55	1435
11	50	57	66	77	77	82	82	83	67	59	44	38	33	28	23	20	19	19	19	18	19	26	31	38	1075
12	46	55	59	56	64	69	72	73	60	53	38	33	30	26	21	18	18	18	18	20	22	27	32	41	969
13	43	44	45	51	50	53	56	59	64	57	55	50	46	60	76	72	64	69	72	80	80	90	89	91	1515
14	92	91	91	91	93	94	92	95	80	72	62	56	51	42	36	31	27	30	31	37	45	51	53	60	1305
15	64	68	75	75	80	84	87	87	75	59	48	45	39	30	28	28	30	29	30	32	36	41	49	←	1219
16	←	clocked →											→	23	21	20	18	18	18	18	23	25	28	31	
17	34	44	47	51	56	60	64	63	56	46	35	30	28	26	20	18	15	15	15	16	18	23	26	26	832
18	33	34	40	44	47	54	58	58	51	40	39	35	33	32	29	26	29	29	28	28	28	31	36	37	879
19	40	40	45	49	55	62	65	65	50	46	39	36	33	30	28	27	29	29	37	36	37	38	41	44	1001
20	45	50	51	56	59	64	68	67	58	54	49	45	41	38	34	47	44	48	48	45	50	51	50	59	1221
21	61	66	69	73	72	72	74	77	73	68	60	53	47	43	40	35	31	31	36	35	36	45	75	78	1350
22	85	81	86	93	94	94	92	89	76	50	45	43	41	53	50	45	38	35	35	36	60	70	91	72	1534
23	72	92	92	90	91	92	95	95	92	77	75	64	58	57	52	61	67	68	68	65	62	69	73	76	1793
24	80	80	87	96	91	92	92	93	78	64	55	48	43	39	33	40	45	118	48	45	51	54	53	57	1508
25	59	60	69	75	78	83	85	80	70	55	52	44	38	33	30	29	33	30	36	44	56	61	63	67	1330
26	68	74	77	81	81	84	85	82	71	59	54	48	43	40	34	44	86	75	57	85	85	85	76	66	1670
27	70	74	81	83	84	88	89	88	81	60	56	50	42	36	34	33	32	28	30	34	40	42	45	54	1354
28	56	55	58	60	63	67	72	69	70	63	56	48	43	39	36	34	32	31	32	32	36	46	56	56	1210
29	54	62	81	90	92	93	91	82	71	64	59	51	46	48	49	40	42	39	42	45	45	48	51	57	1472
30	61	66	71	71	90	91	92	93	90	77	68	55	48	54	65	50	52	53	54	60	69	72	76	80	1662
31	80	88	90	93	97	97	97	91	85	68	58	49	46	39	37	36	35	35	35	39	45	50	51	53	1588
Total																									

~~HOURLY PRECIPITATION (inches)~~

HOURLY RH %

Station: EVAP-1

Date: Aug 1994

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	AVG (MEAN)
1	60	65	65	67	70	85	80	73	81	92	84	69	53	46	46	45	41	35	35	38	47	65	65	78	1485	62
2	77	71	71	76	82	81	89	91	80	72	60	54	42	37	30	30	29	28	28	30	36	41	46	53	1334	56
3	61	67	72	74	71	74	74	76	74	69	57	46	40	31	27	26	26	26	25	26	30	37	41	50	1200	50
4	58	62	68	70	76	79	82	79	66	53	44	39	33	26	24	29	24	27	31	33	34	41	45	46	1169	49
5	51	61	63	63	64	69	70	70	60	55	51	54	56	67	78	75	70	58	57	63	70	69	69	74	1537	64
6	78	82	87	89	89	94	95	89	74	58	51	45	40	37	31	31	30	30	30	32	37	42	45	49	1363	42
7	60	64	69	73	76	81	85	84	70	57	50	46	38	29	27	25	24	24	26	29	34	37	41	45	1194	50
8	51	56	61	65	69	72	75	73	60	49	43	35	28	26	25	24	21	19	18	18	24	28	29	34	1003	42
9	39	44	44	51	54	59	63	63	55	40	38	35	32	25	24	23	22	21	21	21	26	28	29	32	894	37
10	36	40	44	52	58	61	63	64	58	47	42	38	36	32	28	25	24	24	24	24	26	31	35	36	948	40
11	43	49	54	57	59	64	67	69	62	53	50	42	38	33	30	30	35	35	34	45	49	50	53	54	1155	48
12	46	58	62	64	65	83	85	71	77	70	56	50	43	41	36	33	34	34	36	40	40	43	50	54	1285	54
13	59	64	68	72	75	78	80	82	75	66	54	48	44	37	37	35	34	33	33	34	46	47	55	68	1326	55
14	70	80	86	86	88	90	95	98	82	78	73	75	60	48	40	37	35	34	34	35	43	49	53	61	1530	64
15	66	69	75	77	78	79	81	82	65	58	48	47	44	45	43	43	47	40	41	42	53	60	80	87	1455	61
16	86	86	87	91	92	95	95	95	87	74	67	59	50	47	49	55	51	49	51	51	57	64	66	71	1675	70
17	77	80	84	84	85	88	92	92	77	61	53	48	40	38	34	30	30	28	27	27	31	35	40	47	1328	55
18	49	54	56	62	66	66	72	74	70	58	48	42	39	39	37	55	65	55	59	67	61	64	67	72	1392	58
19	77	79	82	82	87	89	78	82	85	86	93	89	74	55	50	44	41	65	59	66	69	90	97	96	1815	76
20	92	91	92	94	96	96	96	95	93	93	88	87	86	88	85	75	67	70	64	70	73	88	88	88	2055	86
21	93	88	92	95	96	96	96	96	87	75	64	58	52	43	39	32	31	41	44	50	53	55	63	71	1614	67
22	74	79	83	86	88	90	91	92	78	63	55	53	46	41	46	48	38	38	37	40	44	46	48	53	1455	61
23	58	64	69	72	75	73	72	68	67	65	49	40	43	54	77	66	67	71	86	82	85	83	86	90	1670	70
24	91	91	93	94	94	94	94	94	90	73	61	53	47	43	40	38	36	31	27	42	53	57	58	64	1558	65
25	71	75	79	82	84	87	88	88	77	71	78	73	67	90	85	70	61	54	50	55	77	76	75	79	1792	75
26	84	87	89	92	94	94	95	96	85	67	60	49	41	32	25	25	25	25	25	36	43	48	50	61	1428	60
27	66	67	73	82	86	89	91	91	70	55	42	40	37	29	26	26	26	26	29	33	36	40	46	48	1253	52
28	52	55	61	69	69	75	76	76	65	53	42	34	32	28	27	26	25	25	25	27	29	32	34	36	1073	45
29	38	47	57	65	70	77	79	80	66	50	44	36	28	26	24	24	22	21	21	24	30	34	40	43	1046	44
30	48	49	58	64	69	74	78	79	63	50	42	37	32	28	25	25	25	25	25	26	29	31	32	32	1046	44
31	36	43	49	54	55	57	59	63	53	43	38	36	34	29	28	31	36	34	40	49	50	57	63	69	1106	46
Total																										

~~HOURLY PRECIPITATION (INCHES)~~

Station: EVAP 1

Date: SEPT '84

Avg	Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
53	1	72	70	75	78	77	70	73	69	58	55	50	45	42	39	37	34	31	31	31	32	38	47	54	56	1264
48	2	58	58	60	63	68	73	78	79	67	56	80	41	36	33	29	29	29	28	28	29	35	39	43	42	1151
41	3	41	44	47	55	61	68	70	72	60	56	45	36	28	28	27	25	24	23	22	22	27	28	33	44	982
44	4	50	57	60	64	67	70	74	76	60	50	44	38	33	26	24	24	23	23	23	27	29	31	32	39	1044
39	5	42	44	48	53	58	60	64	66	58	49	42	37	32	29	27	23	23	23	23	24	27	28	29	30	939
33	6	30	30	33	34	39	45	50	60	55	43	35	33	30	28	27	26	26	23	23	22	22	26	26	37	803
45	7	46	51	50	51	52	54	55	57	53	52	49	43	42	30	38	35	34	36	37	38	42	42	43	48	1086
53	8	53	56	59	63	60	73	77	79	75	62	57	52	46	42	38	37	35	34	34	35	42	45	48	50	1260
49	9	57	61	65	68	72	75	77	79	70	60	50	43	38	36	33	31	30	30	30	30	32	33	34	38	1170
45	10	40	47	52	60	64	66	70	73	66	58	48	42	39	33	32	30	29	29	29	29	31	35	36	43	1081
75	11	46	49	51	54	56	56	55	70	89	71	94	95	92	90	89	75	77	82	79	76	83	83	87	90	1809
76	12	89	77	87	91	93	94	95	95	82	67	65	55	54	45	67	53	57	75	75	74	79	78	86	90	1819
68	13	83	91	94	95	95	95	95	95	93	79	72	65	52	40	35	31	29	31	40	54	60	59	64	74	1621
57	14	79	84	86	89	92	92	93	94	75	62	50	43	35	29	27	27	27	29	32	40	47	41	47	59	1379
56	15	70	77	81	82	86	88	88	88	78	65	48	41	39	34	30	27	27	27	32	42	42	50	53	55	1350
62	16	60	64	61	64	65	87	95	87	86	91	75	68	55	45	42	38	37	39	39	46	53	62	70	77	1496
63	17	85	89	92	94	96	96	96	96	80	65	55	49	44	38	33	29	28	28	30	44	51	58	63	73	1512
57	18	78	80	83	87	89	92	93	90	70	58	45	38	34	30	28	27	27	27	31	42	47	48	58	61	1363
56	19	68	70	75	80	85	87	87	83	65	53	41	33	46	37	33	32	30	33	44	44	48	52	58	65	1349
73	20	73	77	80	82	86	88	90	92	90	72	56	48	44	42	35	43	75	68	67	80	89	87	87	90	1743
71	21	94	96	91	97	96	97	96	96	96	77	80	73	68	62	55	48	46	42	43	44	45	45	53	57	1697
56	22	70	77	81	79	84	90	92	94	89	68	50	40	36	35	34	33	31	31	28	32	32	32	32	32	1335
36	23	34	36	37	38	42	46	47	53	52	45	40	35	35	33	29	26	26	26	27	28	30	30	31	31	857
64	24	31	31	32	34	42	47	53	62	68	67	62	61	58	57	59	61	67	89	92	94	94	91	95	96	1543
71	25	70	91	91	97	98	99	99	100	99	91	84	61	42	37	31	31	31	31	34	57	68	76	79	82	1701
69	26	85	91	93	94	96	97	97	98	98	70	60	50	42	42	39	35	34	39	45	52	61	75	81	83	1657
58	27	83	88	70	92	95	77	97	97	85	72	60	50	37	26	26	25	25	25	26	28	31	37	45	49	1380
52	28	51	53	57	60	64	67	72	73	69	64	58	55	49	42	39	38	38	38	41	43	43	45	45	45	1269
51	29	47	49	58	66	71	77	80	87	75	61	50	44	40	35	28	26	24	24	30	39	45	50	57	62	1225
51	30	68	72	75	78	82	85	88	90	75	55	46	40	34	30	26	25	24	24	28	28	33	37	44	45	1232
	31																									
	Total																									
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

~~HOURLY PRECIPITATION (Inches)~~

Station: EVAP 1

Date: OCTOBER 1984

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1	43	48	48	50	53	68	65	68	83	92	90	95	98	94	86	80	70	80	77	91	93	97	96	95	
2	95	96	96	95	95	96	96	95	95	96	91	89	76	68	55	50	47	67	55	60	78	85	77	82	
3	87	92	92	92	90	92	95	95	93	93	88	75	66	58	55	52	51	51	49	63	68	66	67	72	
4	75	80	88	90	92	93	91	93	73	73	82	80	81	71	63	52	59	59	56	60	62	62	70	79	
5	85	83	88	87	91	87	88	90	91	86	87	90	65	48	44	37	34	33	31	31	42	57	62	64	
6	70	70	68	81	85	88	89	91	94	95	91	73	60	46	41	35	32	29	28	28	45	57	56	59	
7	68	73	76	79	85	90	91	92	93	74	90	68	58	44	36	35	29	28	27	27	40	49	50	51	
8	60	69	72	83	88	90	92	93	95	96	90	69	50	44	39	30	28	27	25	25	40	48	47	55	
9	65	62	75	83	96	89	91	94	94	96	91	73	55	44	37	34	30	28	27	27	39	40	46	52	
10	62	64	69	70	80	83	86	88	89	89	80	70	57	44	35	33	30	30	30	31	33	34	35	41	
11	45	48	48	50	51	54	63	70	72	78	67	50	38	34	33	32	31	31	32	33	34	38	40	44	
12	45	47	55	60	64	65	62	67	91	90	92	87	90	79	87	83	71	68	62	58	64	78	83	89	
13	95	98	99	97	98	100	100	100	90	92	98	80	68	57	50	45	42	42	43	44	54	56	67	65	
14	60	71	76	80	79	57	82	76	74	65	58	54	50	46	45	41	38	30	27	29	45	58	64	73	
15	78	78	77	71	65	64	66	70	73	75	70	60	62	57	45	59	58	59	64	62	82	95	90	83	
16	72	73	65	60	61	63	64	68	78	82	74	61	52	45	38	38	36	39	41	38	38	40	44	44	
17	44	45	45	49	60	72	70	73	72	73	72	65	58	END OF MONITORING											
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									
Total																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

HOURLY ~~PRECIPITATION~~ (Inches)

EVAP-1

Station: RET DAM

Date: June, 1994

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total	Avg
1													22	22	23	24	25	24.5	24	22	19	17.5	15.5	14		
2	14	13.5	11.5	11	10	8.5	8	11	14	15.5	19	20.5	22	25	26.5	27.5	28	27.5	27	25	22.5	20.5	20	17.5	447.5	18.6
3	21	20.5	20	18	17	16.5	15.5	17.5	18	21.5	23	22.5	26	23	22	20	20	17.5	15.5	15.5	14	12.5	11	10	438.5	18.3
4	9.5	8	7	6.5	6	5	5	8	13.5	14	17.5	19	21.5	22.5	23	23	22	22.5	21	15.5	15.5	13	13	11.5	364.0	15.2
5	17.5	16	14.5	13.5	12.5	11.5	10.5	11	11	11	11	12.5	13.5	15	16.5	12	13.5	14.5	14.5	15	12	11	11	9	307.5	12.9
6	9	8	7	7	6	6	7	8.5	8	9.5	13	13	15	10.5	11.5	15	12.5	10.5	12	11	11	11	11	10.5	244.5	10.2
7	9.5	9	8.5	8	7	6.5	7	7.5	8	8	10	13	14.5	17	18	17.5	17.5	17	15	14.5	13	12.5	12.5	10.5	281.5	11.7
8	10	9.5	9	8	8	8.5	8	7	6.5	9	9	9.5	8.5	9.5	11	10.5	10.5	11.5	11	11	9.5	9	9	7	219.0	9.1
9	6.5	6	5	4.5	4	4	4	7.5	9.5	11.5	13	14.5	15	17	17.5	17	17	18	17.5	16.5	13.5	11.5	11	11	271.5	11.3
10	10.5	8	7	6	5.5	5	5.5	9	11	15	18	22.5	24	24	24	24	24	17	17	16	14.5	14	12.5	12	346.0	14.4
11	12	10.5	9	8	7.5	6	8	10	13	14.5	16	17.5	19	21	22.5	22	22	21.5	21.5	17	17.5	15	13.5	12	358.5	14.9
12	12	12.5	10	10	8.5	8.5	10	13	16.5	19	20	23	25	25.5	26	26.5	29.5	28	28	22.5	19.5	18	18	18.5	453.0	18.7
13	15	14	13.5	11	10.5	10	11	12	17	23	27	28.5	29	29	30	30.5	31	29.5	29.5	25	21	20	19	17.5	504.5	21.0
14	15.5	15	13.5	12	11.5	11	12	17.5	21	24.5	28	30	30	30.5	31	31	31	30.5	28.5	26.5	24	22	22.5	22	541.5	22.6
15	22	22.5	21.5	21.5	21	20.5	20	24	26	26	26.5	26	29	27	28	28	25.5	27	26.5	24	21.5	20	19.5	17.5	572.0	23.8
16	17	16	15.5	16	14	17	16	18.5	19.5	22	21.5	20	20.5	22.5	23	26	19	17	17	16.5	16.5	15	14.5	14	432.5	
17	13	12	11	10	10	9.5	11	15	18	20	22	22.5	24.5	25	26.5	27	27.5	27	26.5	23	22	21	18	16.5	458.5	19.1
18	14.5	13.5	15	13	12	11.5	14	18	20	22	24	24	25.5	23	21	26.5	27	26	27	25	22.5	19.5	19	17	489	20.4
19	17	15	14.5	13.5	12	11	11	11.5	15	18	22	23.5	25.5	26	24.5	27	27.5	26.5	23	22.5	21	20	20	18	465.5	19.4
20	17	18	16.5	16	16	15	14	15	19	20	22	24	23	20	26.5	25	27	25	28	26	23.5	23.5	19.5	15.5	497.0	20.7
21	16	14	14.5	13	12	10.5	10	11.5	17	20	26	27	28.5	29	30	31	31	31	30	29	26	22.5	21.5	17.5	518.5	21.6
22	16.5	15.5	14.5	13	12	11	10.5	11	15	20	22.5	24.5	27	25	29	30	30	30	30	28	26	24	23	19	504.0	21.2
23	17.5	16.5	15.5	14.5	13	12.5	12.5	16.5	20	22	24.5	25.5	27	28	26.5	30	30.5	31	30.5	27.5	26	22.5	20	20	534.0	22.3
24	17.5	18	16	14	13	12.5	12.5	15.5	20	22.5	24	22.5	29	31	33	33	33	32	30.5	29	26.5	25.5	27	26	547.5	23.6
25	24	23	22	21.5	20.5	20	20	20	21.5	22	20	20	22	23	27	27	28	28.5	28	27	25	24	22	20.5	553.5	23.1
26	21	20.5	20.5	19	18.5	18	18.5	20	23	25	26.5	28	29.5	31	31	31.5	31	30	27	26	23.5	22	21	20.5	592.5	24.3
27	18.5	17.5	16	15	14	13.5	14	18	20.5	24	25.5	27	30	31	32	32.5	32	34	30.5	30	26	24	23.5	21.5	574.5	23.9
28	19.5	19.5	17	19.5	15	14	13.5	16.5	21	23	25	28.5	31	32.5	33	33.5	34.5	34	34	32	26	24.5	23	21.5	588.5	24.5
29	19.5	19	17	16.5	16	15	14.5	18	21	25	27.5	31	33	35	32	34	35.5	35	35	32.5	29.5	28.5	27.5	27	623.5	25.9
30	25.5	25	25.5	25	24	23	23	23.5	25	25	25	21	18	19	23.5	24.5	24	25	23.5	23	22	20.5	20	19.5	534.0	22.3
31																										
Total																										

HOURLY ~~PRECIPITATION~~ (Inches)

Station: EVAP-1

Date: July '84

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1	18.5	18	17.5	16.5	15.5	14.5	14.5	17	20	22.5	24	25.5	27.5	28	30	30.5	31	31.5	30.5	29	25	22.5	21.5	20	551
2	20	17.5	16.5	15.5	14.5	14	14	18	21	25	28	28	30	30.5	22	32.5	33	32.5	32.5	31	29.5	27.5	25	24	591
3	20.5	19	18	16.5	16.5	15	15	18.5	22.5	25.5	27	29.5	30.5	30.5	33	34	34	33.5	33	31	29	27	24	25	608
4	22	20	19	17	15	14.5	13.5	14	18	23.5	25	27	28.5	16	32	32	32.5	32.5	32.5	31	29	24	23	21.5	577.5
5	20	18	17	15.5	14	14	13	14	19	22.5	26	30	30	32	33	33.5	34	34.5	34	33.5	29	24.5	23	24	588
6	20.5	19	17	16	14.5	14	13	15	19	23	26	29	32	34	35	36	37	37	36	35	31.5	29	26	25	619.5
7	24	23	22	22	21	21	20	21	23	27	31.5	33	33.5	33	33	29	26	26	27	27	25.5	24	22.5	22	617
8	22	22.5	22	22	22	22	21	21	25.5	26	29	30	29	31	33	34	32.5	32	31	30	28	24	22	19.5	637
9	19.5	19	18	17.5	18	17.5	17.5	18	20	22.5	24	26.5	29	27	26	27	28	28	25	23	24	20	18	18	533
10	18.5	18	17.5	16.5	15	15	14.5	14	16	17	20	21.5	23.5	25	27	28	29	29	29	28	26	22.5	21.5	19	511
11	20	18	16	15	14.5	13.5	13	12.5	16	19.5	23	25	28	29	31	34	34.5	35	33	33	31	27	24	23.5	567
12	21	19.5	18.5	18	17	15.5	14.5	15	19	23	25	28	30	34	34	33.5	34.5	35	34	31.5	30	27.5	26	24	608
13	24	23.5	23	22.5	22	22	21.5	21	21.5	24	24.5	27.5	27	22	21.5	22	23	22	19.5	20	19	18	18	17.5	526.5
14	17.5	17.5	17.5	17	16	16.5	16	17	19.5	20	23	23.5	26	27	29	30.5	29.5	29	28	27.5	25.5	25	24	22.5	526.5
15	22	20.5	19.5	19	18	17.5	18	18.5	21	24	26	27	29	31	31.5	33	29.5	30.5	30.5	29	26.5	25	23	←	569.5
16	←			clock	stopped								→	32.5	33.5	34	34	34	33.5	32.5	27.5	26	24	22.5	
17	21	19	18	16.5	16.5	15	14	14.5	19	24	27	29	31	33	34	34.5	34.5	35	34.5	33	29	26.5	25	23.5	607
18	21	21	18.5	17.5	17	16	15	16	21	25	27	31	32.5	34	34.5	35	33	35	34.5	33.5	31	28	26	25	628
19	25	23.5	21	20	19	18	17.5	19	34	28	30	32	33	34.5	36	34.5	33	31	27.5	30	18.5	28	26	25.5	646.5
20	25.5	24	23	22	21.5	20	19	20.5	24.5	27	28.5	30	31	34	34	29	31	28	30	29	26	27	26	24	634.5
21	23	21	21.5	20	20.5	20.5	20	20	23	24.5	27.5	28.5	30	32.5	31.5	34	34	33	32.5	31	27	24	22	21	624.5
22	20	20	19	18	17.5	16.5	17	18.5	20	26	26	28	25	24	26	28.5	29	29.5	29.5	28	21.5	21	20.5	20	549
23	17	17	17	17	16.5	16.5	16.5	17	19.5	20	20.5	23	24	25.5	25	23	23	23	22	22	21.5	20.5	20.5	20	487.5
24	19	18	17	16.5	16	15	15	15.5	19	21.5	24	26	27	29	30	26	25	26	27	26	24.5	24	23.5	23	533.5
25	22	21	19	18	17.5	16.5	16.5	18.5	21	23	25	27.5	30	30	32	29	28.5	27.5	26.5	25	23.5	23	23	22	567.5
26	20.5	20	19.5	19	19	18	18	19.5	22	24	26	22.5	29	32	31	24	21.5	21.5	21	21	21	21	21	21	533
27	21	19	18.5	18.5	18	18	18	19	20	23	26	28	29	32	32	31	32	31.5	29	28	26	25.5	24.5	23.5	591
28	23.5	23	22	21.5	20.5	20	20	21.5	21.5	24.5	25	28	29.5	31.5	32.5	34	33	32	30.5	30	28	26	24	24	626
29	23.5	21.5	19.5	19	18.5	18	18	20	21.5	23	24	26.5	27	26.5	28	29	29	30	26.5	26	24.5	23.5	23	21.5	567.5
30	21	19.5	A	20	18	17.5	17.5	17	18	18.5	21	23	25	25	23.5	26.5	25	23.5	24	23	22	21	20	19.5	508
31	19	17.5	17	16.5	17	15.5	15.5	17.5	19.5	23	23.5	25	27	28.5	29.5	31	30.5	30	31	29	26	26	24.5	23.5	563
Total																									

TEMP

HOURLY ~~PRECIPITATION~~ (Inches)

Station: EVAP-1

Date: Aug 1994

AVG	Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
22.6	1	25.5	28	24	28	29	30	30	27	23	21.5	21	19.5	19	20	19.5	19	[illegible]	17.5	16.5	17.5	19.5	20.5	23.5	25	542
23.8	2	19	20	19	19	18	17.5	16.5	17.5	20	20.5	23.5	25	27	29	31	31	31.5	31.5	30.5	28.6	25.5	23.5	24	21.5	570
24.5	3	20	19	18	18	19.5	18	18.5	19	19.5	20.5	23.5	27	29	31	32	33	33	32.5	[illegible]	[illegible]	24	24.5	23	21.5	588.5
23.0	4	19	19	17.5	17	16	15	14.5	17	20	24	27	28.5	31	33.4	31	30	33.5	31	18	17.5	16.5	25.5	24.5	24.5	551
22.7	5	23	20.5	21	21	20.5	20	20	20.5	24.5	25.5	26	25	25	22	22.5	23	23.5	26.5	26	24	22.5	22	21.5	19.5	545.5
22.6	6	18	17	16.5	16	16	15	14.5	17	20	22.5	25	27	29	30	32	31	29	28	27	26	23	22	21.5	20	543
23.4	7	19.5	19	17	16	15.5	16.5	16	16	19	23	25.5	27	29	30.5	32	31.5	32	31.5	29.5	28	25	23.5	22.5	21	562
23.7	8	19	17.5	16.5	15.5	14.5	14	13.5	15.5	20	22	25	28	30	32	32.5	33	33.5	33.5	33	30	25	23	22	20	568.5
24.2	9	18.5	17.5	16.5	15	14.5	13.5	13	15.5	20	22	26	29	31	33	33.5	33.5	34	34	33	30	25.5	24	24	22.5	581
25.7	10	20.5	19	18	17.5	16	15.5	15	17	21	25.5	28	30	31	33	33	34	34	35	24	33	29	26.5	26	25	616.5
24.3	11	22	20.5	19	19	18.5	16.5	16	16	20	23.5	26	29.5	31	33	33	32	29	29	29	26	25	24.5	23.5	23	584.5
25	12	22	21.5	21	20.5	21	19	19	20	19.5	23	25	27	29	30	31	33	31	30.5	28	29	27	25	24	23	599
24.8	13	21	19.5	19	18	17	16.5	16	16	19	22.5	26	27.5	30	31	32	33	34.5	33.5	33	31	28	28	22	22	596
23.0	14	21.5	20	19.5	19.5	18.5	19	18	17.5	20	19.5	26	28	24	26	28	29.5	30	31	30	27.5	25	23	23	21.5	551.5
23.5	15	20	20	19	18.5	18.5	18	17.5	18	22	25	27	27	29	27.5	26.5	28	27	30	28.5	27	25	24	20.5	20	563.5
22.8	16	20	20	20	19	18	17.5	17	18	20	22	23.5	25	27	27	25	26	27	28	27.5	26.5	25	23	23	22	547
24.9	17	21	21	20	20	19	18	17.5	17	21	24	26	27	29	30	31	32	31	31.5	31	29	27	26	25	23.5	597.5
23.7	18	23	22	21	20	19.5	19.5	18.5	19	20	25	27	29	29	30	30	26	25	26	24	23	24	23	22	21.5	569
21.0	19	21	20	19	19	18.5	18	19	18	19	18	18	18	21	26	28	29	29	25	24	23	21	18	17	17	503.9
17.2	20	17	17	17	17	16.5	16.5	16.5	16.5	17	17	18	18	18	18	17.5	17	18	19	19	19	17	16	15	15	412.5
18.7	21	14	14	13.5	13	12.5	12	11.5	12	15	17	19	20.5	22	24	26	27.5	28	25	23	22	21	20	19	18	449.5
22.0	22	17.5	16.5	16	15.5	14.5	14	14	15.5	18	20	22	24	26	27	26	28	28.5	30	29	26	24	23	21.5	20	527.5
20.6	23	19.5	19	18.5	18	17.5	18	18	19	20	21	26	26.5	27	23	19.5	22	23	20	18.5	19	18	18	17.5	17	493.5
21.2	24	17	16.5	16	15.5	15	15	14.5	14.5	17	20	21.5	24	25	26	26.5	27	27.5	29	28	25	23	22	22	21	508.5
19.6	25	20	19	18	17.5	17	16.5	16	17	18	19	19	20.5	20	17.5	20	22.5	24	25	25	24	20	18.5	18.5	18	470.5
21.0	26	17	16.5	15	14	13.5	12.5	12	12	15	19	21	23	26	27.5	29	29.5	30	30	29	25	24.5	23	22	20	505
22.9	27	19	18.5	17	15.5	14.5	14	13	15	18	21	21.5	25	28	30	31	32	31.5	31	29	27.5	26	24	22	21.5	548.5
24.3	28	20	19.5	18	17	17	16	15.5	16	20	24	26	28	29.5	31	32	32	32.5	32	31	28.5	27	25.5	24	22	584
23.3	29	21.5	20	17	16	15	13.5	13	14	19	22	25	27	29	30	31	31	32	32	31	28	24	23	21.5	20	558.5
23.3	30	19	18.5	16	15	14	13	12.5	16	19	21.5	25	26.5	30	31	32	32	32.5	32	31	28	25	25	24	22	556.5
24.1	31	21	18.5	17	17	17	17	16.5	19	23	28.5	30	31	31.5	33	31	31	28.5	30	25	24.5	23.5	22.5	21	19.5	577.5
	Total																									

TEMP

HOURLY ~~PRECIPITATION~~ (Inches)

Date: SEPTEMBER '87

Station: EVAP-1

(AVG)	Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
20.5	1	19.5	19.5	18	17	17	17	16	17	18.5	19.5	21	21.5	23	24	25	26	26	26.5	25	23	20	19	17	16	492
19.5	2	15	14	13	12	11.5	11	10	11	15	18	21	23	25.5	26.5	27.5	28	28	28	27	24	20.5			19	467.5
	3	18.5	17	15	13	11.5	11	11	11	16	18	22	23	26	28	29										
	4	—	—	—	—	—	—	—	—	—	MISSING DATA															
	5	—	—	—	—	—	—	—	—	—	NO RECORD															
	6	—	—	—	—	—	—	—	—	—					→	23.5	24	24	23.5	22.5	21	20	19	18	15.5	
	7	—	—	—	—	—	—	—	—	—																
18.6	8	16.5	14	13	12	11	10	9	9	12	17.5	18.5	20.5	22	25	26	27	28.5	28.5	28	23	21	20.5	18	17.5	446
	9	16	15	14	13	12	12	11	11	14	19	23	25	28	29	30	32				MISSING					
	10	21	18.5	17	14.5	14	13	12.5	12	15	19	22.5	21	—	—	—	—	—	—	NO RECORD						
17.5	11	19.5	19	18	18	17.5	17	21.5	20	18	17	17	17	17	17	19.5	15	19	17	16	16.5	15.5	15	15	15	419
17.5	12	15	15.5	14	13	13	13	12.5	12	15	18	20	23	22.5	21.5	20	23.5	22	19	18.5	18	18	18	17	16	421
19.7	13	16	15	14.5	16.5	16.5	16.5	14	13.5	16	18	19	21	24	26.5	27	28.5	28.5	26	24	21.5	21	20	19	17	473.5
19.1	14	16	15	14	13.5	12.5	12	11.5	12	15	18	21	22.5	25	26.5	27	27.5	26.5	25	24	21	19.5	20	18	16.5	459.5
21.1	15	15	14	13.5	13	12.5	12	12	12	15	18	20	23.5	25.5	28	29	29	28	28.5	26	23	22	20	19.5	19	507
20.4	16	19	18	17.5	18.5	18	16	16	16	16	16.5	19	20	22.5	24	24.5	26	25	24.5	23	20	18	17	17	16	490
18.3	17	15	14	13	12	11.5	11	10.5	11	14	17	19.5	21	23.5	25.5	27	27.5	28	27.5	24	20	18	17	16	16.5	438
19.4	18	13.5	13	12.5	11.5	11	10.5	10	12	15	19	21	23.5	26	28	29.5	30	29	28.5	25	22	20.5	20	17	18	466
20.2	19	16.5	16	14	13.5	12.5	12	12	15	18	22	25	25	24	27	28	28.5	28	25	22.5	21	20	19	18	16.5	484
15.5	20	15	14	13	12	11.5	11	10	10	11	15	19	21	23	25	24	22	19	19.5	19	17	15.5	15	15	15	371.5
15.8	21	14.5	14	13.5	13	13	12.5	12	11.5	12	16	16	17	18.5	19	20	21	20	19	18.5	17.5	16.5	16	16.5	13.5	379
16.5	22	11.5	10	10	10	9	8	7	6.5	9	11.5	14	15	17	20	21.5	23.5	23.5	24	23	20	20.5	21	21.5	20	397
21.3	23	19	18	18	17.5	17	17	17.5	16	19	21	23	23.5	24	25.5	26	27	26	25	24	22.5	21.5	21	20.5	20.5	510
12.5	24	20	20	20	20	17.5	16	13	12	11.5	11.5	14	14	15	15	14	12	11	8.5	7	7	6	5.5	5	5	300.5
7.4	25	5	5	4.5	4	3	2.5	2	1.5	3	4	6	9	11	12	14	14	14	14	12	9	7.5	7	6.5	6	176.5
9.8	26	5.5	4.5	3.5	3	2.5	2	1.5	1.5	3	6	8	12	14	15	17	19	20	20	17	15	13	11	10	10	236
14.9	27	9.5	8.5	8	7.5	6.5	5	4.5	5	9	12	15.5	18	20	21	22.5	23	23	23	20	18.5	17	15	13	11.5	356.5
10.3	28	10	9	8	7	6	5.5	5	5	6.5	8	9.5	11	13	15	16	16	16.5	16	13	12	11	10	9.5	9	247.5
9.6	29	9	8	6	4	3.5	2.5	2	1	5	8	10	12.5	14	16	18	18	18	18	13	11	10	9	7	6	229.5
11.7	30	5	4	3.5	3	2	1	1	1	6	9	12.5	16.5	18	20	23	23	22.5	22.5	19	17	15	14	12	11.5	280
	31																									
	Total																									

HOURLY ~~PRECIPITATION (inches)~~ TEMP

Station: EVAP-1

Date: OCTOBER 1984

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1	13	11	12	13	13	11	11.5	11.5	12	12	12	11.5	10.5	12	12	13	14	13	12.5	12.5	12	12	12	11.5	
2	11.5	11	10.5	10	10	10	10	10	9	10.5	11	12	14	15	17	18.5	18.5	18	19	17	14	13	14	11.5	
3	10.5	10	10	9	8.5	8	7.5	7.5	7.5	8	9	11.5	14	16	17	17	17	17	16.5	15.5	15	15	14.5	14	
4	13.5	13	12	12	11.5	11.5	11.5	11	11	11.5	12.5	13	13	16.5	17	16	15	15.5	16	15	14.5	14	13.5	13	
5																									
6																									
7																									
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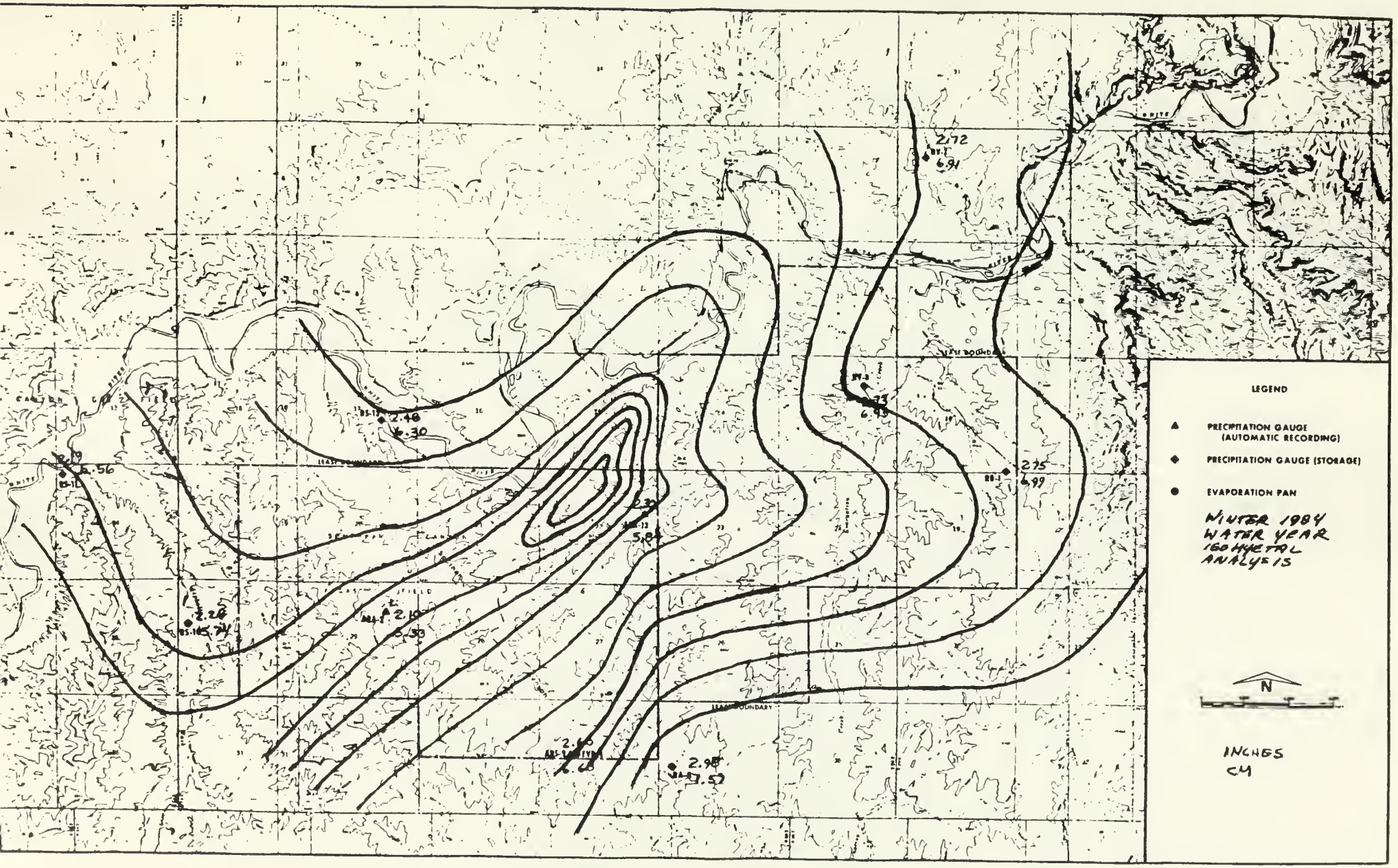
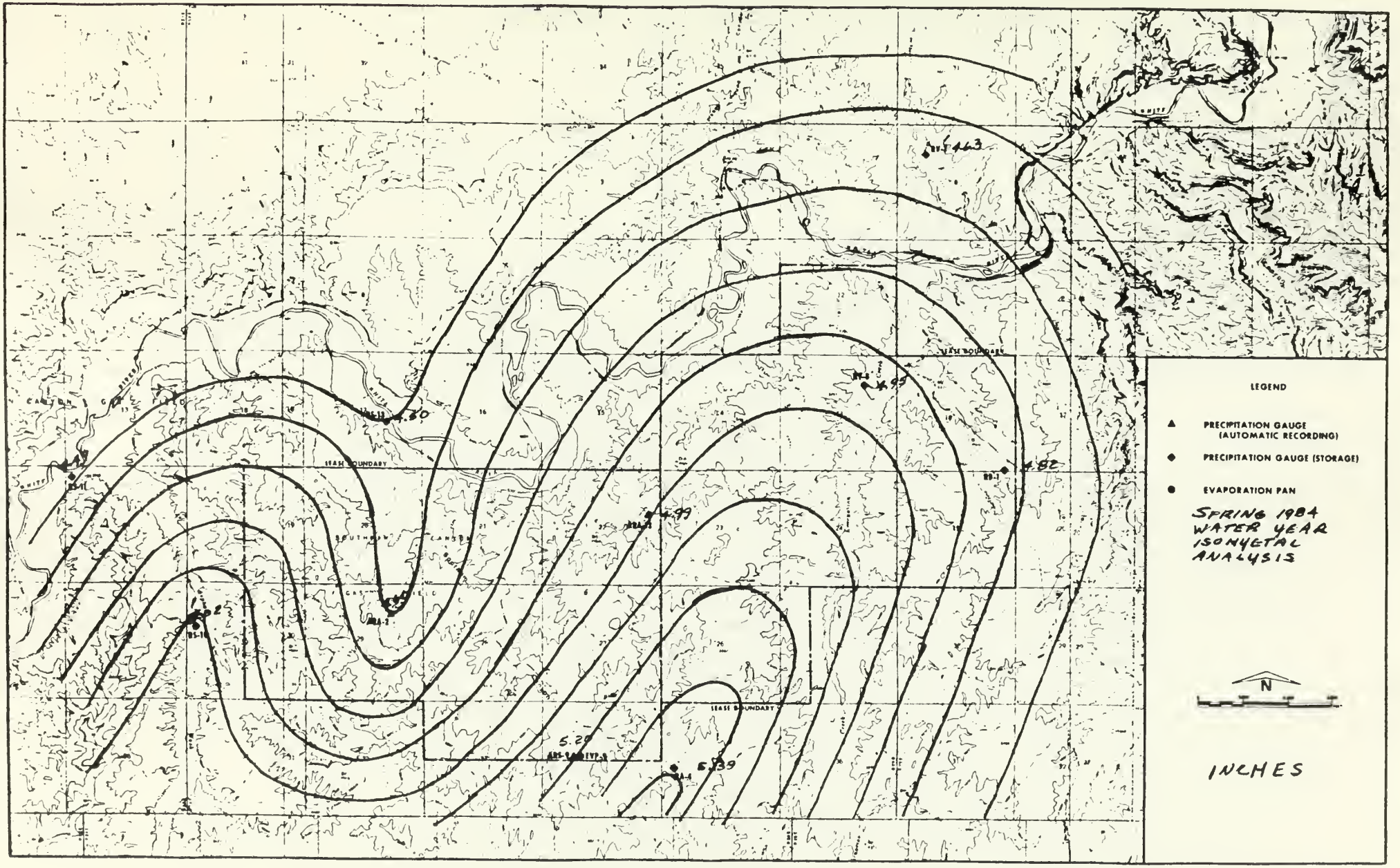
27																									
28																									
29																									
30																									
31																									
Total																									
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	


LEGEND
PRECIPITATION GAUGE (AUTOMATIC RECORDING)
PRECIPITATION GAUGE (STORAGE)
EVAPORATION PAN
WINTER 1984 WATER YEAR ISOHYETAL ANALYSIS
N
INCHES
CM
2.72
6.91
2.75
6.99
2.46
6.30
5.56
2.10
5.33
2.98
7.57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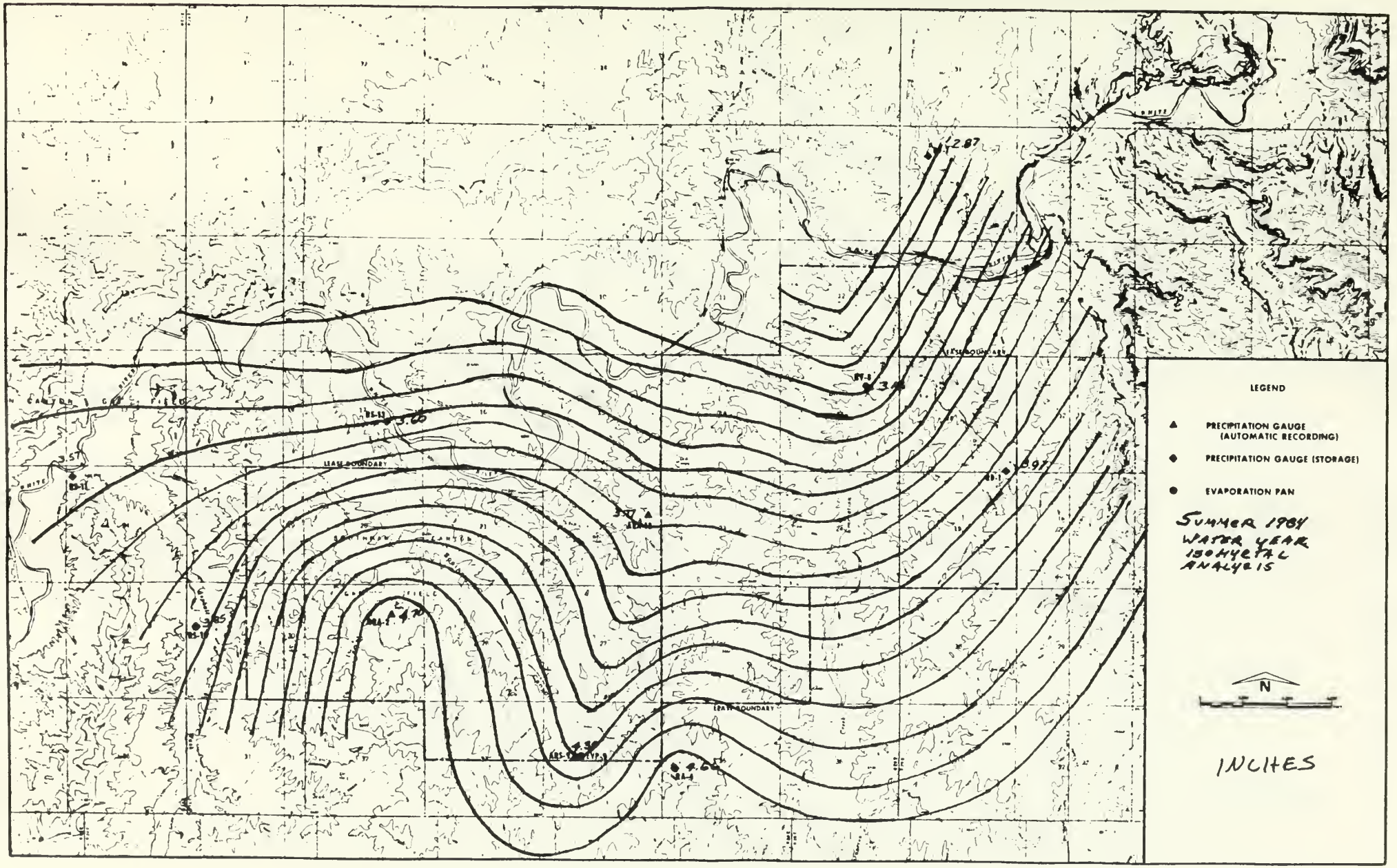
PRECIPITATION GAUGE (AUTOMATIC RECORDING)
PRECIPITATION GAUGE (STORAGE)
EVAPORATION PAN
SPRING 1984 WATER YEAR ISONYETAL ANALYSIS
N
INCHES
LEASE BOUNDARY
5.20
6.39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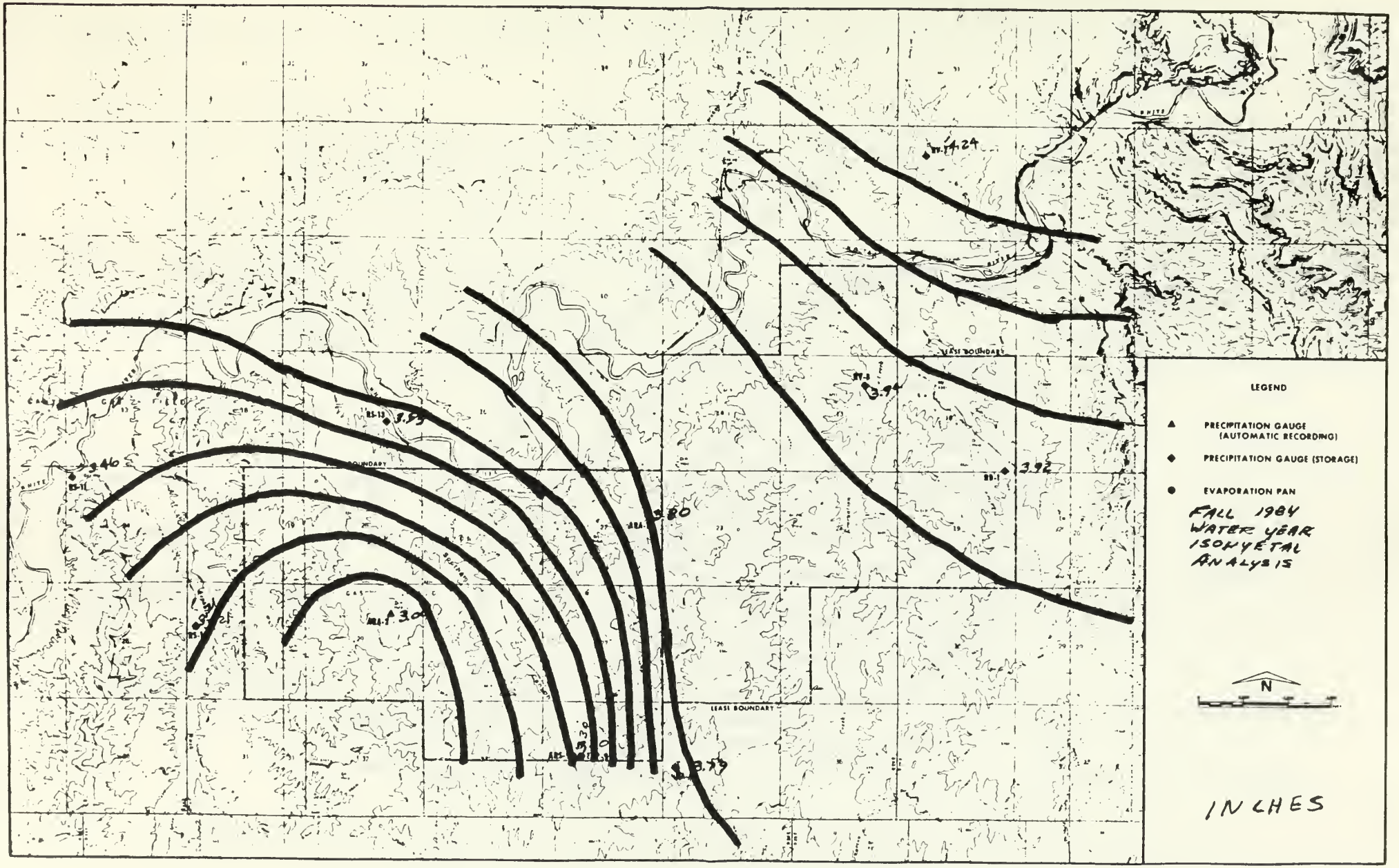
PRECIPITATION GAUGE (AUTOMATIC RECORDING)
PRECIPITATION GAUGE (STORAGE)
EVAPORATION PAN
SUMMER 1984
WATER YEAR
100 YEAR
ANALYSIS
N
INCHES
LEASE BOUNDARY
2.87
3.66
3.57
3.65
3.30
3.62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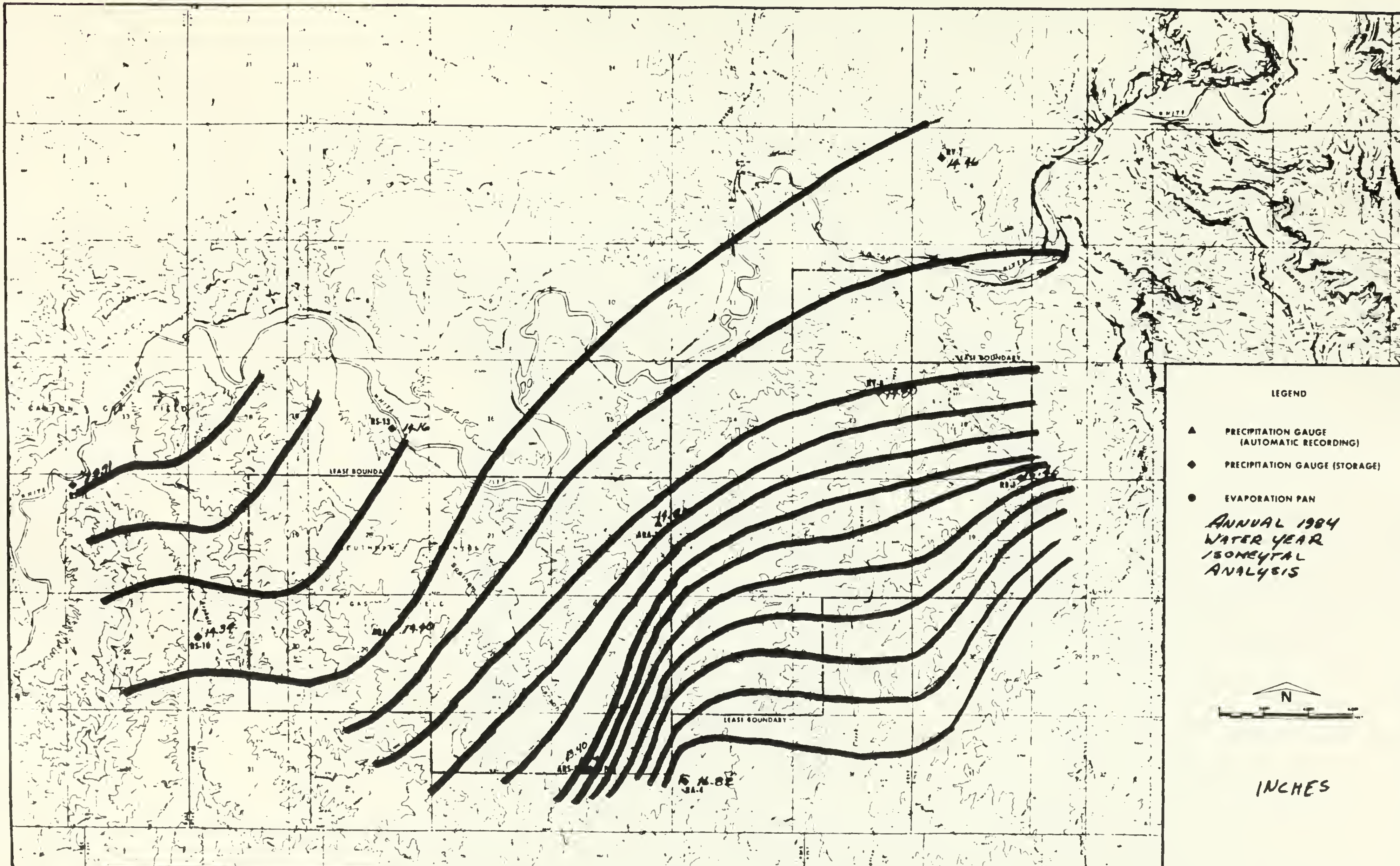
PRECIPITATION GAUGE (STORAGE)
EVAPORATION PAN
FALL 1984 WATER YEAR ISOHYETAL ANALYSIS
N
INCHES
LEASE BOUNDARY
3.40
3.53
3.94
3.92
3.80
3.30
3.79
4.24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PRECIPITATION GAUGE (STORAGE)
EVAPORATION PAN
ANNUAL 1984 WATER YEAR ISOHEYTAL ANALYSIS
N
INCHES
LEASE BOUNDARY
LEASE BOUNDARY
LEASE BOUNDARY
14.46
14.16
14.94

Form 1279–3
(June 1984) BORROWE

TN 899 .U82 W43 198

Water resources fie
report, 1984

DATE LOANED	BORROWER

USDI – BLM